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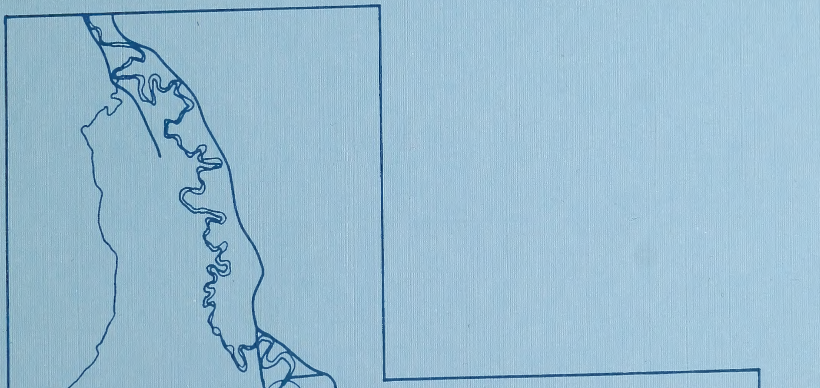

LAND USE PLANNING INVENTORY

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EAST PRAIRIE METIS SETTLEMENT
Land Use Planning Inventory

by

Al McCully
Hugh Seaton

Alberta
MUNICIPAL AFFAIRS

Municipal Planning Section
Planning Branch
Alberta Municipal Affairs
March, 1982

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Ann McIntosh prepared the illustrations and tables. Planning Support Services drafting staff were responsible for the map work. Lori Carlson and Paula Taylor typed the report.

Al McCully
Hugh Seaton

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1.0 Executive Summary

The purpose of this report is to inventory and analyze the major physical and cultural resources of East Prairie Metis Settlement.

Prepared by the Municipal Planning Section for the Metis Development Branch and East Prairie Metis Settlement Council, the report is intended to be used as an information base. It is expected that the inventory will also be used by the Federation of Alberta Metis Settlement Associations, Settlement residents, government agencies, municipalities, and the private sector in making decisions related to the Settlement.

East Prairie Metis Settlement is located 37 km (21 mi) southeast of High Prairie and covers a land area of 337 sq km (130 sq mi). Of the approximately 71 houses (including mobile homes), 11 are situated in the hamlet and 60 in the rural area. The hamlet is the Settlement focal point as 15% of the residences and most of the community facilities and services are located there.

The development pattern on Big Prairie Metis Settlement has traditionally been based on primary resource activities including: logging, fishing, hunting, trapping, farming, and oil and gas exploration.

The culture and lifestyle of Settlement residents is closely linked with the environment. Many families still obtain a significant portion of their food from the land through fishing, hunting, gardening, and picking berries. Because of the lack of full time employment opportunities, many families have small incomes. However, by combining seasonal employment (logging, heavy equipment operation, fire fighting) with other activities such as farming, trapping and fishing, most families are able to make a good living. Settlers tend to place a stronger emphasis on family unity and daily living than on money and material possessions.

The remainder of the summary highlights the existing situation and development potential. It also suggests actions by which the development potential of the Settlement's resources could possibly be realized.

1.1 Oil and Gas

There are three producing gas wells, 13 abandoned oil wells, and one potential oil well on the Settlement. Oil and gas exploration creates short-term employment. Additional employment in this sector seems likely.

1.2 Sand and Gravel

A preliminary analysis of potential gravel deposits does not indicate widespread distribution. It appears that the existing withdrawal site on the East Prairie River provides an adequate supply for on-Settlement needs.

- The commercial potential of gravel deposits on the Settlement should be determined.

1.3 Peat Moss

Extensive untapped peat moss deposits exist, but are not utilized.

- The peat deposits should be studied to determine their commercial potential.
- Deposits located near rivers or the head of ravines should be avoided because they function as drainage retention zones.

1.4 Domestic Water Resources

Residents generally obtain their water from bored wells, dugouts, seepage cisterns, or the river. A 72,720 litre (4,000 gallon) tank, replenished with water trucked in from Joussard, supplies the Settlement office and community hall.

The shallow aquifer encountered in the shallow bored wells is very predictable and could provide adequate quantity of water over most of the Settlement. The water quality, although high in iron content, is good and the wells are generally good producers.

- Installation of cisterns is recommended. Cisterns could provide an adequate supply of water to operate indoor plumbing and the related conditioners and filters necessary to reduce the iron content.
- Any plans for development on the Settlement should ensure that the aquifer which supplies the shallow wells does not become contaminated.

1.5 Agricultural Development

Agriculture in East Prairie is characterized by small mixed farms. About 20 families are involved in farming, most of which are part-time farmers. Approximately 825 hectares (2,038 acres) of land are under agricultural use. This includes: 113 ha (279 ac) in grain (usually oats or barley), 437 ha (1,080 ac) of tame hay, 126 ha (310 ac) of improved pasture, and 149 ha (369 ac) of unimproved pasture. There are about 300 head of cattle, 50 horses, 100 fowl, six hogs, a couple of goats and one sheep on the Settlement.

Nearly all land with road access has been allocated to settlers, but much of the allocated land is undeveloped or underutilized. Farm units tend to be small. Fields are small to medium in size and fragmented. Field size and fragmentation is due in part to the multitude of meanders of the East Prairie River and its old oxbow lakes and cutoffs.

According to Canada Land Inventory (C.L.I.), the major physical limitations for agriculture are climate, topography, wetness, and poor soil structure. However, considerable amounts of undeveloped land with higher agricultural capability (C.L.I. class 3) and moderate capability (C.L.I. class 4) exist.

Although the C.L.I. inventory indicates there is little potential for long season wheat and warm temperature vegetables, there are few insurmountable soil and climate limitations for the production of short season barley oats, rapeseed and grasses and legumes for seed, hay or pasture. Drainage of wet soils can often be improved through the removal of vegetative cover.

The major socio-economic limiting factors are the high capital costs, high technology, and high management requirements of today's agriculture. Other socio-economic constraints include: small parcel size, opportunity for off-farm employment, low expectations, and difficulty in obtaining credit. To reduce the physical and socio-economic limitations, the following actions should be taken.

- A detailed agricultural capability inventory should be undertaken.

- Efforts should be made to increase the production of early maturing varieties and cool climate species of grains, oilseeds, and forages. Similarly, increased commercial production of livestock should be considered to develop the agricultural base, thereby providing on-Settlement jobs and future revenue.

- Commercial production of horses and specialty crops such as honey should be considered.

- Settlers and Council should take advantage of the advisory services of the Alberta Agriculture District Agriculturalist and the Agriculture Canada Research Station at Beaverlodge to: (i) prepare an agriculture development plan or strategy for the Settlement; and (ii) obtain day-to-day agricultural management advice.

- An agricultural service board type committee should be established to promote agricultural development and to coordinate programs with farmers, Council, and government departments.

- Settlers interested in farming should expand their agricultural knowledge by taking training courses, and by working for successful farmers in the area before applying for agricultural parcels.

- Before allocating new agricultural parcels, detailed soil testing should be done, legal surveying completed, the quantity and quality of groundwater determined, forestry capability assessed, recreation potential identified, and road access and power line extensions planned.

- Further development of the community pasture should be encouraged.

- Council should implement measures to encourage the development and full utilization of already allocated agricultural parcels.

- New agricultural parcels should only be allocated to settlers with demonstrated farming skills and the capital necessary to operate successfully.

- New clearing and breaking should be planned to create larger fields in consolidated blocks, rather than in numerous smaller, isolated parcels.

- The use of fire as a management practice to prevent grasslands from regenerating should be considered.

- When updating or upsizing farm equipment, settlers should consider pooling or sharing through a co-op or other joint venture to reduce capital costs to the individual and to increase utilization of the equipment.

- Settlers should take advantage of the opportunity to sell feed grain and hay off-Settlement.

1.6 Forestry Development

Tree species with potential commercial value include white spruce, trembling aspen and balsam poplar. Only areas of both moderate capability (C.L.I. class 4) and lower capability (C.L.I. class 7) exist. There is an estimated 1,000,000 foot board measure of white spruce remaining uncut. According to Canada Land Inventory, the major factors limiting land capability include excessive soil moisture and low moisture retention capacity.

Until recently when it went into receivership East Prairie Wood Products Ltd., a sawmill and wood products plant, was the largest single employer on-Settlement. The facility was owned and staffed by Settlement residents.

- An up-to-date timber (including poplar and aspen) inventory should be taken.
- Council should adopt and enforce a policy of scaled down timber harvesting to maintain forest reserves for future generations.
- Council should implement a reforestation program to accelerate the regrowth of reserves and to ensure future employment.
- The development of a plant in the region to process poplar and aspen should be supported.
- Timber cutting and reforestation programs could complement the development of a game ranching operation, if properly coordinated.

1.7 Wildlife Resources

Moose and deer are common to most areas of the Settlement. Hunting and trapping occurs primarily for domestic use. Six families trap and four families commercial fish (off-Settlement) on a seasonal basis.

According to Canada Land Inventory (C.L.I.) about five sections of land have very high (C.L.I. class 2) ungulate capability (moose, elk, deer), one township has high capability (C.L.I. class 3), and the rest of the land area has moderate capability (C.L.I. classes 4 and 5). The land related limiting factors for ungulates include: adverse topography, lack of soil nutrients, and poor soil moisture (either too much or too little).

- The possibility of setting up a game ranching operation should be studied. It could include mixed species (buffalo, moose, elk, deer) or a single species. Game ranching would be economically and culturally feasible, as well as providing employment, a meat source, and revenue. It should also be coordinated with other land use activities such as forestry and agriculture.

- Technical support service and low interest loan programs should be established for game ranching operations.

1.8 Population

The 1981 census sponsored by the Metis Development Branch indicates a population of 307, an increase of 36 over the previous year. At least part of the increase may have been due to a change in the census procedure. The 1980 census counted only those on the Settlement at the time of survey, whereas the 1981 census included those temporarily living off-Settlement but still holding Settlement membership.

The population over the past decade has fluctuated, but is increasing slightly. The structure of the population is also changing. While the number and percentage of pre-school children are declining, the number and percentage of adults are increasing. About 59% of the population are adults, 33.5% school children, and 7.5% are pre-school children. The changing population structure is largely the result of a decline in family unit size which has decreased from 6.0 in 1975, to 4.3 in 1981.

In-migration rather than natural population increase is therefore likely to be the most important factor in influencing population change.

In-migration could be stimulated by several external factors:

i) continued high farmland prices (off-Settlement), interest rates, and housing costs;
ii) creation of nearby off-Settlement jobs (e.g., proposed flakeboard plant); or
iii) possible transfer of sub-surface mineral rights by court decision to Settlements.

- Social programs and community facility development should reflect the changing nature of the population structure.

1.9 Employment

On-Settlement employment includes work in logging, farming, administration, trapping, brushing and clearing, and construction. Off-Settlement employment includes work in logging, sawmills, heavy equipment operation, oil and gas exploration, commercial fishing, education (professional, administration, bus driving) and transportation.

With the closure of the largest single on-Settlement employer, East Prairie Developments Ltd., and the recent shut-down of most of the sawmills in High Prairie area, unemployment could be a serious problem on the Settlement.

- Efforts should be made to retrain settlers for employment which less cyclical.
- Attempts should be made to create steady employment or permanent part-time jobs on or within commuting distance of the Settlement. Ideally these new jobs should fit in with existing seasonal employment patterns.
- A reforestation program, an aggressive agricultural development program, and a game ranching operation all could provide long term on-Settlement employment based on renewable resources.

1.10 Housing

Several housing programs have been implemented in recent years, including: the Metis Development Branch Program (MDB), Emergency Trailer Program (ETP), Residential Rehabilitation Assistance Program (RRAP) and Rural Home Assistance Program (RHAP). RHAP is currently the most important program under which at least four homes are constructed annually with a materials grant (up to $18,000) and various assistance programs (both Provincial and Federal) for the labour costs.

Present housing stock totals 71 residences, including 20 RHAP, 42 MDB, 4 ETP, and 5 funded by other sources. The RHAP homes are all in good condition. Four of the MDB funded homes are comparable with the RHAP units. Five others are in fair condition and the remainder are in need of repair or replacement. The poor condition of about half the housing stock, combined with a housing shortage is creating an accommodation problem. Council reports there to be a housing shortage. If the population continues to increase and the trend toward smaller family units continues, the housing situation will likely worsen.

- Suggestions for reducing the housing shortage and improving the existing housing stock include:
  i) accelerating the number of RHAP houses built each year;
  ii) obtaining additional emergency trailers (ETP);
  iii) repairing existing homes using RRAP funding; or
  iv) encouraging settlers to build their own homes.

1.11 Infrastructure

The road system is not highly developed. It consists of roads paralleling the East Prairie River. Alberta Transportation constructed an additional 7.2 km (4.5 miles) of graded and gravelled road south of the hamlet in 1981. Electricity and telephone is available to most residences along the road system. Homes are heated with oil, wood, or propane. Sewage disposal is by septic tank or pit privy. Garbage is collected weekly and trucked to a modified landfill site (nuisance grounds).

Recreational facilities include: a skating rink, ball diamonds, rodeo grounds, and a camping and picnic area. Other community facilities include: a community, church, and Settlement Office. There are no commercial services available.

- When planning new road locations, Council should consider other factors such as power and telephone availability, agricultural capability, forestry capability, recreation potential, groundwater supply and quality, and the impact on the hamlet.

- The development of a Settlement workshop or garage should be considered for the storage and repair of vehicles and materials.

- Development of the new recreation site for camping and picnicking should proceed

- Expansion of the community hall may be required.

1.12 Hamlet

The hamlet is currently not a strong residential focal point of the Settlement. In addition to the community facilities, there are only 11 residences in the hamlet, two of which are vacant. There are about 37 undeveloped lots.

- Due to its close proximity to the East Prairie River, expansion and development of the hamlet should be carefully planned to avoid possible flooding and high water-table problems.

- Residential development should be directed to the hamlet to strengthen its role as a centre for the Settlement.

- Council should encourage the allocation and development of the 32 unallocated lots. The development of the vacant allocated lots should also be encouraged.

- Additional hamlet lots could possibly be created by:
  i) relocating the ball diamonds and expanding to the east;
  ii) replotting existing undeveloped lots to a smaller size and higher density;
  iii) expanding to the 0.4 hectare (10 acre) parcel immediately west of the hamlet.

Implementation of Suggested Actions

To assist in the implementation of the above suggestions for actions and additional research, it is recommended that Council prepare a plan to guide future development and land use on the Settlement. Such a plan could take the form of a comprehensive land use plan, a five-year development plan, a community plan or a hamlet plan. Whatever approach is taken the document should address what actions are to be taken and what criteria will be used in making land use decisions to meet the objectives of the Settlement. It is also advised that the planning process provide for public involvement during the preparation of the plan.

2.0 Introduction

The purpose of this report is to inventory and analyze the major physical and cultural resources of East Prairie Metis Settlement. Prepared by the Municipal Planning Section for the Metis Development Branch and East Prairie Metis Settlement Council, the report is intended to be used as an information base for future land use planning. It represents the first phase in the planning process and provides a departure point for future land use and development planning. It is expected that the inventory will be utilized by Settlement residents, government agencies, adjacent municipalities, and the private sector in making decisions related to the Settlement.

The priorities established in consultation with the Metis Development Branch, Federation of Metis Settlements and the East Prairie Metis Settlement Council include the following.

1) Prepare a land use inventory which is acceptable to the Metis Development Branch and which is useful and understandable to East Prairie Council.

2) Collect and analyze baseline data on physical and human resources which will meet the information requirements of the next stage in the planning process -- the five year development plan.

3) Focus on the development potential and highlight positive changes which have occurred on the Settlement.

The report is organized as follows. Chapter One provides an executive summary. Chapter Two outlines the purpose, intended use, organization, methodology and limitations. Regional context is discussed in Chapter Three. Chapter Four examines the physical resources including sections on climate, topography and drainage, geology, domestic water resources and supply, soils and agriculture, forestry and wildlife resources. Maps are provided illustrating locations of physical resources, existing land use, and potential uses. Chapter Five discusses human resources and includes sections on historical and administrative background, population, employment and community participation. Chapter Six provides data and analyses on housing and infrastructure services. Roads and the water delivery system are mapped. Chapter Seven focuses on the Settlement hamlet or centre. The pattern of building location is mapped and growth potential discussed.

The methodology used involved collection and analyses of data and information, both from primary and secondary sources. Interviews and meetings with the Settlement Council, Settlement staff, Metis Development Branch, Federation of Metis Settlements, other government staff, and private consultants provided valuable information and insight. To simplify presentation of Canada Land Inventory data some of the capability classes and subclasses were grouped to better show which areas of the Settlement have higher capability for agriculture, forestry, and wildlife. For each resource sector the existing situation and prospects for development are discussed.

The report is not without limitations. Because it represents the first effort to document and map all the major physical and cultural resources of East Prairie Metis Settlement, it is anticipated that there will be minor errors and omissions. The level of detail was frequently hampered by inadequate, outdated, and even conflicting data. For example, legal surveys of hamlet lot and most rural parcel locations are unavailable at this time. Information of annual grain, forage and livestock production vary in accuracy and availability. Detailed agricultural and forestry inventories are not available. Despite these limitations, this inventory provides an initial information base which can be added to and revised as land uses change and development occurs.

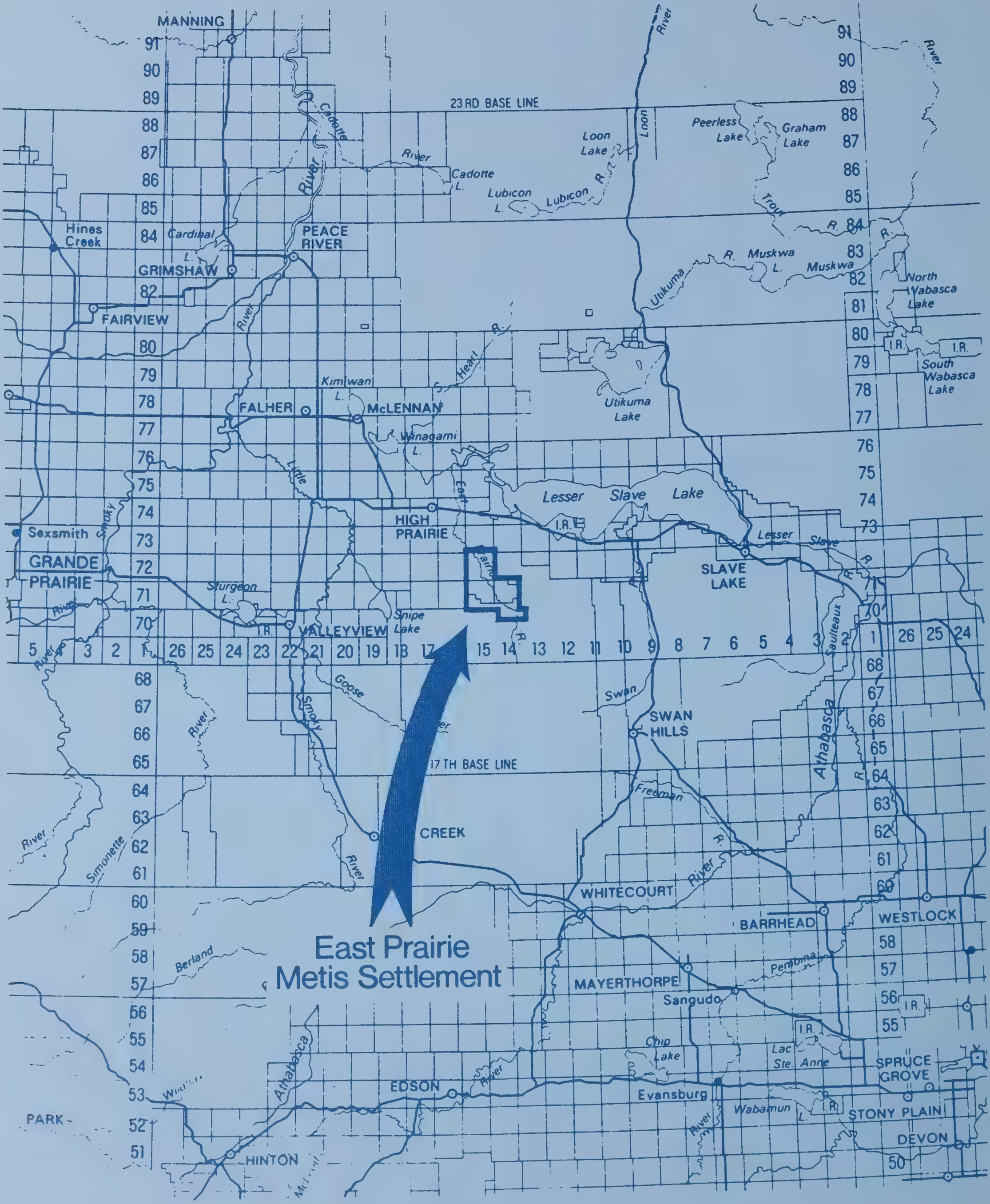
3.0 Regional Context

East Prairie Metis Settlement is located approximately 390 km (242 mi) northwest of Edmonton, and approximately 9.6 km (6 mi) east and 24 km (15 mi) south of High Prairie. The Settlement is accessible from High Prairie via Highway 2 East to the village of Enilda then south along an all-weather gravel road. The Settlement encompasses townships 71 and 72 - range 15, township 71 - range 14, and the northern half of township 70 - range 14 west of the fifth meridian. East Prairie has a land area of 32,634 hectares (80606 acres) (Northern Alberta Development Council, 1980).

The Settlement is located on the northern foothills of the Swan Hills and it is within the Athabasca River drainage area. Waters from the East Prairie River and tributaries drain into Lesser Slave Lake and eventually drain into the Athabasca River via Lesser Slave River. Map 3.1 shows East Prairie in its regional context.

Map 3.1

Regional Context



East Prairie Metis Settlement

Source:
Surveys Branch, Alberta Transportation

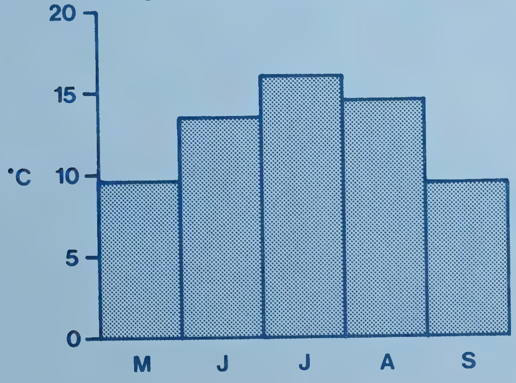
4.0 Physical Resources Situation

4.1 Climate

East Prairie has a continental climate with moderately warm summers and relatively cold winters. July is the warmest month and January is the coldest. The growing season (days above 5.6° C or 42°F mean temperature) starts in late April and ends in early October. (Alberta Department of Lands and Forests, 1975).

As there are no climatological data for East Prairie, weather records for High Prairie and Enilda may be taken as an indication of the conditions on the Settlement. Taken over the period 1941-1970 from High Prairie records, the mean daily temperatures for the growing months are shown by Table 4.1. Mean daily temperatures range from a low of 9.6°C (49.3°F) in September to a high of 16°C (60.8°F) in July (Environment Canada, 1973).

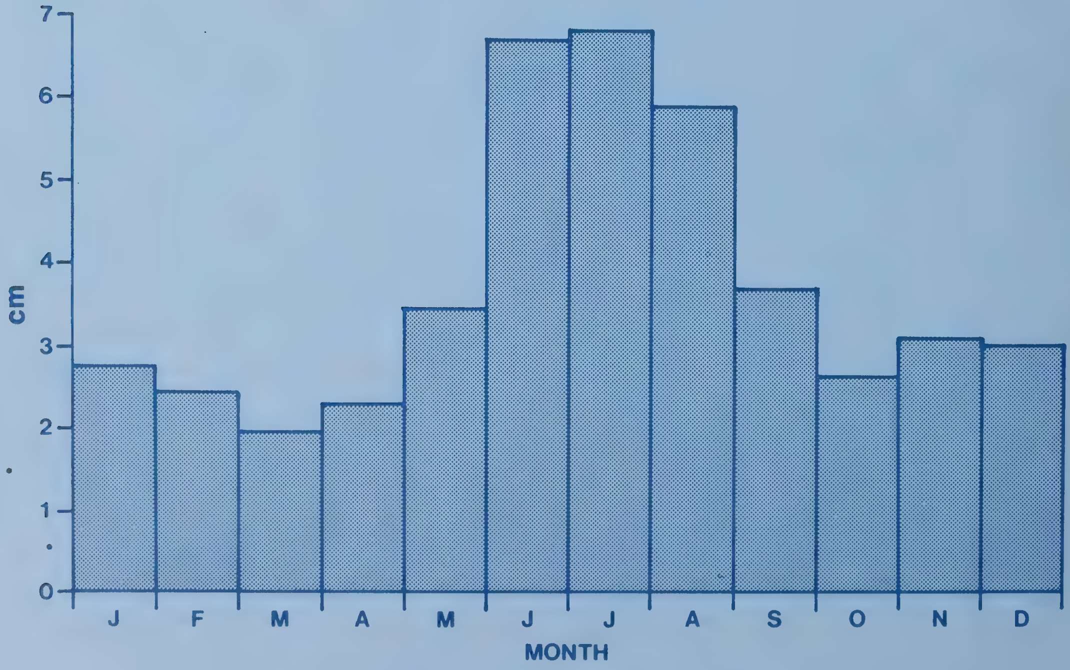
TABLE 4.2
MEAN DAILY TEMPERATURE – HIGH PRAIRIE
May – Sept., 1941–1970



Source: Canadian Normals Vol. 1 Temperature 1941-1970 Environment Canada

The mean total precipitation rates are shown by Table 4.2. Precipitation ranges from a low of 2.71 cm (1.07 in) in October, to a high monthly mean of 6.8 cm (2.68 in) in July. Total annual precipitation is 45.01 cm (17.72 in)(Environment Canada, 1973). Low rainfall in May is common and may adversely affect the production of forage crops. It is reported that drought in May and June hampers crop growth in one out of every three to four years (East Prairie Metis Settlement Council, 1981). Such fluctuations in precipitation limits the production to coarse grains (barley and oats), oilseeds, and forage crops (Nichols, 1981). These crops are well suited to the climate of East Prairie.

TABLE 4.1
MEAN MONTHLY TOTAL PRECIPITATION IN CENTIMETRES
HIGH PRAIRIE 1941-1970



Source: Canadian Normals Vol. 2 Precipitation 1941-1970 Environment Canada

The frost-free period is also an important factor in crop production. Over the period 1941-1970 High Prairie data indicates an average frost-free period of 91 days, the period from June 2 until September 1 (Hemmerick and Kendall, 1972). With regard to frost extremes, however, the latest spring frost was May 11 and earliest fall frost was on August 16. The longest frost-free number of days over 41 years was 151, and the shortest frost-free period was 53 days.

Wheat has suffered from frost damage in approximately 30% of the years. A killing frost is considered as $-1.7^{0}C$ ($29^{0}F$). It should be noted, however, that local changes in topography and vegetation cover influence the hazard of frosts. Where natural air drainage is impeded, frost conditions can be expected to be more severe. Inconsistent weather patterns from year to year are a detriment to a stable agricultural industry. Spring drought and killing frosts limit production on East Prairie to the hardier crops.

4.2 Topography and Drainage

The topography of East Prairie Settlement is generally flat to gently rolling. The lowest area is the flood plain along the East Prairie River where the elevation is approximately 616 m (2051 ft) above mean sea level (AMSL). Elevations rise to highs of 792 m (2600 ft) AMSL in the southwest and 884 m (2900 ft) AMSL in the northeast portion of the Settlement (see Map 4.1).

The land along the East Prairie River is flat to rolling and is characterized by moderately to well-drained alluvial terraces.[1] These areas are extensively farmed for forage production. Areas directly to the east and west of the terraces are level to depressional. These sites are poorly to imperfectly drained and are made up of swampy sites of peat moss and black spruce. Construction of buildings and roads, as well as agricultural practices, are made difficult in these areas due to poor drainage conditions.

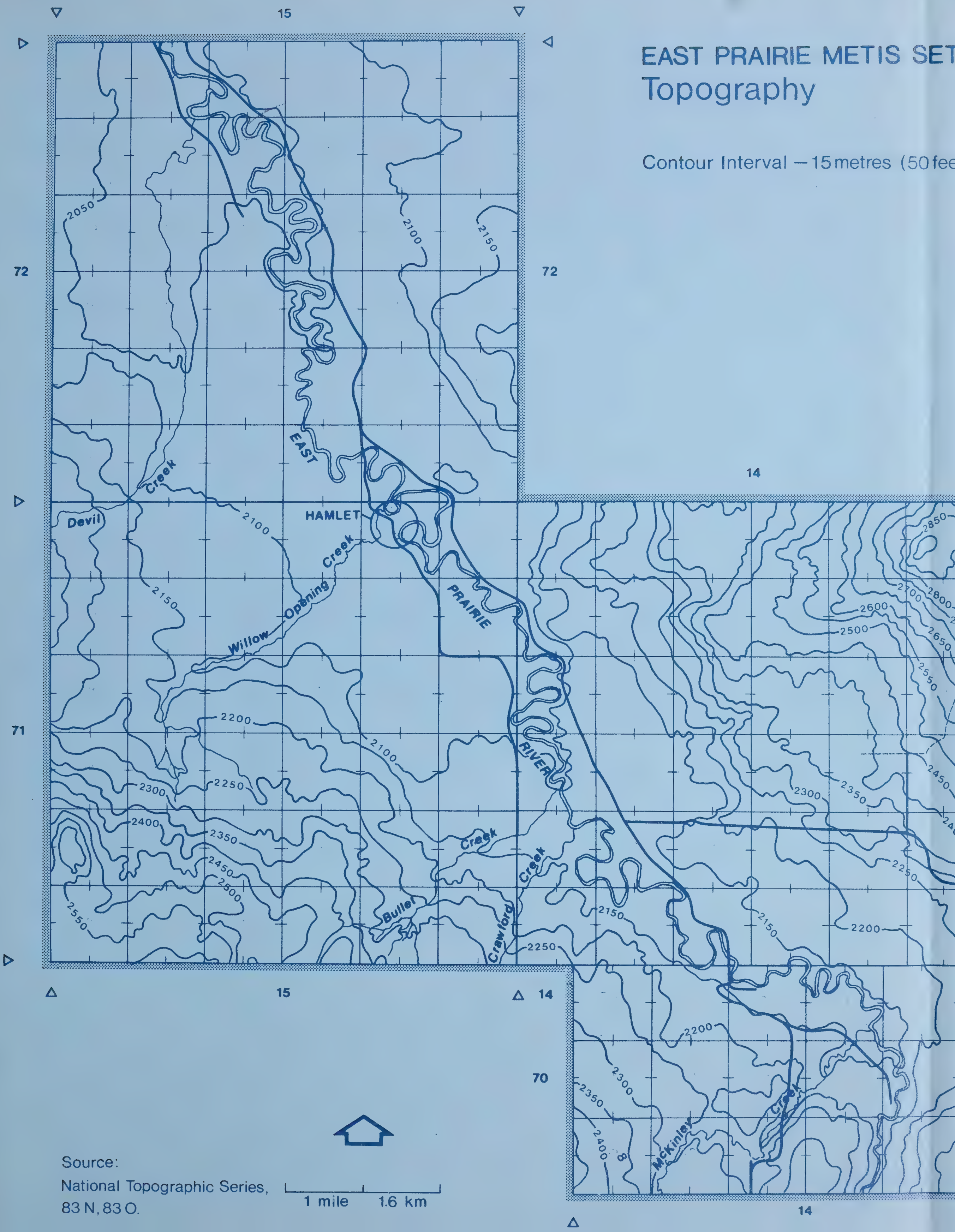
At elevations above the swampy sites, the topography ranges from gently to strongly sloping hillsides. These shallow till[2] areas have the most satisfactory drainage conditions. Slopes range from 2% to 9% in most places, making agricultural practice possible. This till plain has occasional low ridges and knolls.

[1] Alluvial terrace - a river terrace composed of clay, silt, sand or gravel, resulting from a change in process from deposition to downcutting.

[2] Till - unstratified drift deposited by a glacier and consisting of clay, sand, gravel, and boulders intermingled in any proportions.

EAST PRAIRIE METIS SET
Topography

Contour Interval — 15 metres (50 fee

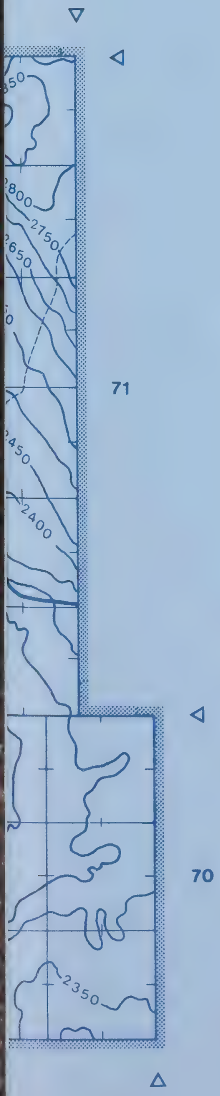


Source:
National Topographic Series,
83 N, 83 O.

Map 4.1

ETTLEMENT

feet)



4.3 Geology

4.3.1 Bedrock Geology

The bedrock geology of East Prairie mainly consists of the Wapiti Formation. This is a consequence of continental sandstones, siltstones and shales, and thin coal seams. A tongue of bedrock of the Puskwaskau Formation extends northwest to southwest in the Settlement. This formation consists of a dark grey marine shale which is silty in the upper part (Alberta Environment, 1978).

Overlying these bedrocks are till, glaciolacustrine[1] and aeolian[2] deposits. These surficial materials vary in thickness throughout the Settlement. The aeolian deposits consist of silt and sand and are found adjacent to the East Prairie River and Devil Creek. The lacustrine[3] material, consisting of clay and silt, was deposited in proglacial[4] lakes. Till underlies both aeolian and lacustrine deposits (Alberta Environment, 1978).

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[1] Glaciolacustrine deposits - deposits formed in lakes deriving much or all their water from the melting of a glacier.

[2] Aeolian deposits - deposits arranged by the wind.

[3] Lacustrine deposits - deposits produced by or formed in the bottom of a lake.

[4] Proglacial lake - lake occupying a basin in front of a glacier generally in direct contact with the ice.

4.3.2 Oil and Gas

There has recently been moderate oil and gas exploration on the Settlement. From January 1980 to December 1980 there was one seismograph program for a total of 18.5 km (11.5 mi) (Metis Development Branch, 1980). At present there are three producing gas wells, thirteen abandoned oil wells and one potential oil well on the Settlement (Alberta Energy and Natural Resources, 1981). According to Council there has been a recent increase in oil company exploration. This indicates potential for greater oil and gas activity on the Settlement. It also provides short-term employment for residents in the brushing of seismic lines and access roads.

4.3.3 Surficial Geology

4.3.3.1 Sand and Gravel

It is important to identify sand and gravel deposits on the Settlement in order to facilitate road construction and the production of concrete. Extraction of sand and gravel for off-Settlement use could also bring royalties to the East Prairie community. Ideally, deposits should be close at hand as sand and gravel is a low-value, high-bulk commodity. It is therefore not usually feasible to make long hauls from the quarry to the construction site (Hamilton, 1975).

According to a preliminary analysis of existing soil maps, geology maps, and aerial photography, the prime area of consideration for finding construction aggregates is along the East Prairie River. Specifically, the best areas are where the river bends have been built from older point bars (Hudson, 1981). Most of the river bends along the East Prairie River are similar in nature and hold potential for aggregate resources. It is likely that a number of other sand bars in the river could also be used.

Alberta Transportation has been using the East Prairie River point bars as a source of sand and gravel. A crusher is used in order to break down the larger gravel aggregates at this site. (see Map 4.2)

Although the preliminary inventory of potential gravel deposits does not indicate widespread distribution, there is an adequate supply for on-Settlement purposes, and there may be potential for off-Settlement use.

4.3.3.2 Peat Moss

Commercial peat moss is used as a soil conditioner for lawns, shrubs, and gardens. In the future, it may also be used in peat-fired electrical generating plants. The peat moss industry is growing in economic importance in Alberta as production has increased substantially over the past two decades. Alberta has the largest reserve of peat moss of all the provinces in Canada (Hamilton, 1975).

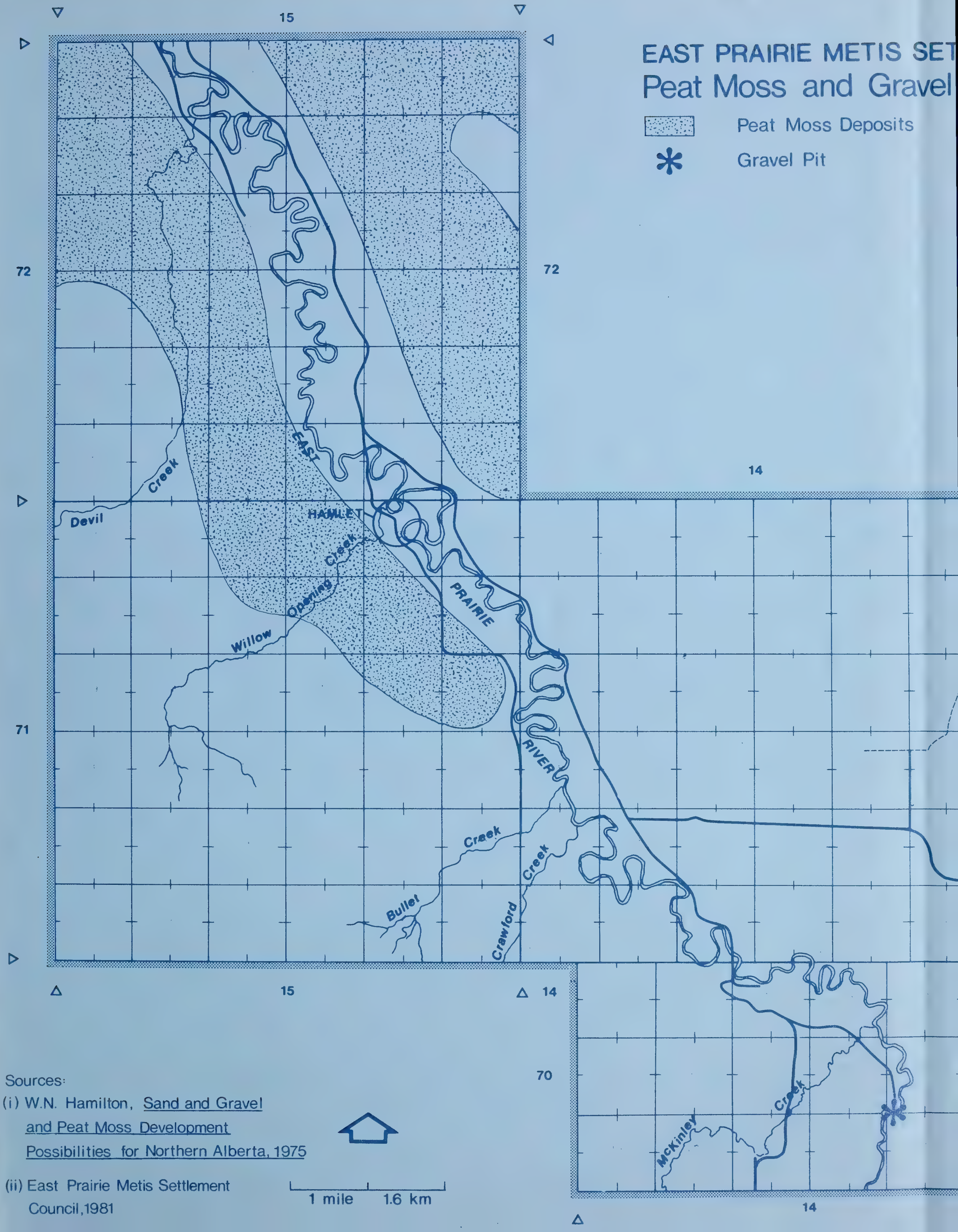
Like sand and gravel, peat moss is a non-renewable mineral included under surface rights. East Prairie has an abundance of peat moss bogs. Map 4.2 shows those areas on the Settlement with bog coverage of 60% or greater and to depths of 0.6 m (2 ft) or greater. Much of township 72, range 15 is included in this area. Black spruce is the characteristic tree cover in moss bogs.

Further study into the economic feasibility of commercial peat production and the extent of the reserves is necessary. There are several local and external prerequisites which must be met. Locally there must be access to the resource, a supply of natural gas or other energy source for drying, and an ample supply of quality sphagnum moss. Access to the peat should be available from the main road and there is a supply of natural gas on the Settlement. Development of peat moss deposits located near rivers or the head of ravines should be avoided as these areas function as drainage retention zones (Amirault, 1981).

EAST PRAIRIE METIS SET
Peat Moss and Gravel

▨ Peat Moss Deposits

* Gravel Pit



Sources:
(i) W.N. Hamilton, Sand and Gravel and Peat Moss Development Possibilities for Northern Alberta, 1975
(ii) East Prairie Metis Settlement Council, 1981

Map 4.2

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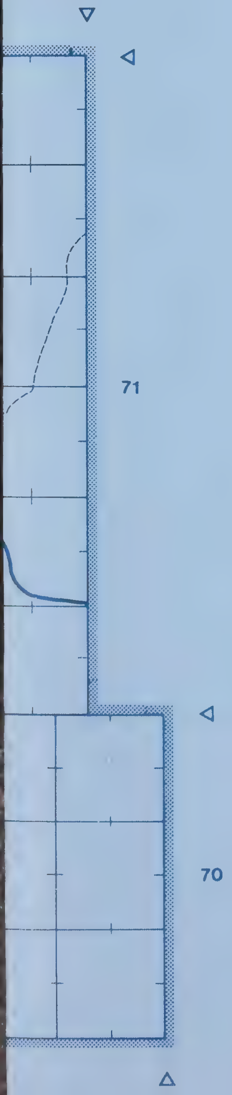


The size of the reserve, its depth, and sphagnum content should be assessed. External factors such as market demand, competition, distance to market, transportation costs, and financing would also have to be considered prior to developing the peat resource. Should results from the suggested studies be positive, a commercial operation could be considered. An average economic plant size for a small scale commercial operation would have an annual productive capacity of 5080000 kg (5000 tons) (Hamilton, 1975).

4.4 Domestic Water Resources and Supply

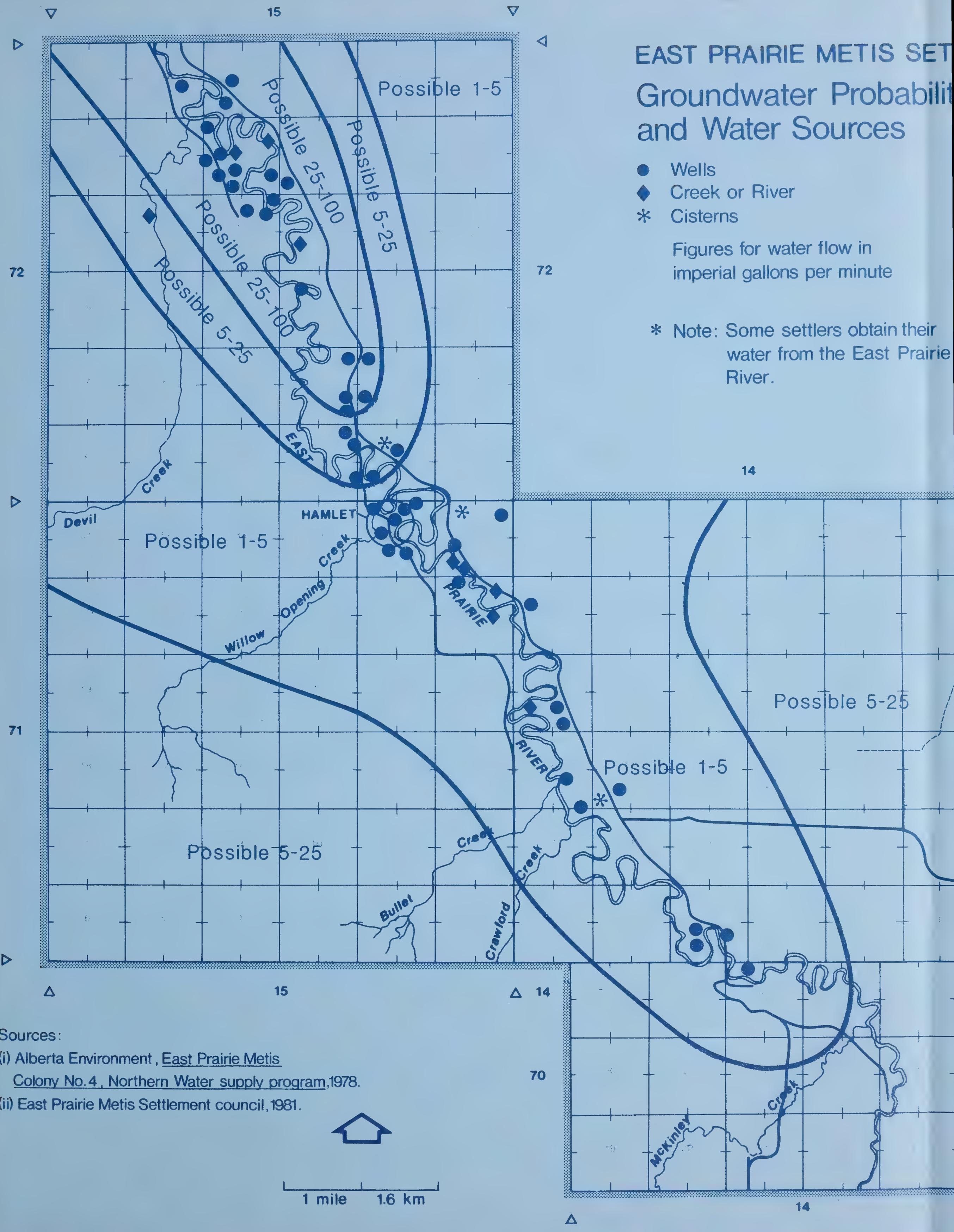
Prior to 1973, settlers drew water directly from the East Prairie River. Between 1973 and 1975, 25 relatively deep water wells were rotary drilled and constructed by Alberta Environment under the Northern Water Supply Program (Alberta Environment, 1978). Fourteen of the wells in East Prairie had flow at rates varying from 0.45 to 22.7 litres/minute (0.1 to 5 imperial gallons per minute). Most rural domestic requirements for groundwater rarely exceed 22.7 l/min. (5 igpm). Map 4.3 shows groundwater probability and water well locations.

Numerous problems were experienced with the deep wells including high iron content, flowing well conditions, natural gas, and freezing up in winter. Attempts to overcome the flowing well - freezing up conditions were unsuccessful. As few of the wells were being utilized, they were cemented up (Hardick, 1981).

The Northern Water Supply Program report determined that surficial aquifers[1] serve as the best source of groundwater for human consumption. Sand units found between 2.3 and 14.6 meters (7.5 and 47.9 ft) are common sources of good groundwater. Sometimes aquifers are also found at greater depths of between 27.4 and 76.2 m (89.9 and 250 ft). Of the 17 wells completed in surficial aquifers at depths ranging from 20.7 to 80.7 m, (67.9 and 264.8 ft), fourteen are flowing at rates varying from .45 to 22.7 l./min. (.1 to 5 igpm). Six producing wells were completed in shallow aquifers at depths between 6.7 and 13.7 m (22 and 50 ft).

In 1978, Peterson Drilling constructed 38 bored wells and had six additional dry holes. The average depth of these wells is 9 m (29.5 ft). The average flow is 34 l/min. (7.5 igpm).

1. Surficial aquifer - a water-bearing bed or layer of sand or gravel, located between bedrock and the surface, capable of yielding considerable quantities of water to wells or springs.



EAST PRAIRIE METIS SET

Groundwater Probabilit and Water Sources

● Wells
◆ Creek or River
＊ Cisterns

Figures for water flow in imperial gallons per minute

＊ Note: Some settlers obtain their water from the East Prairie River.

Sources:
(i) Alberta Environment, East Prairie Metis Colony No.4, Northern Water supply program, 1978.
(ii) East Prairie Metis Settlement council, 1981.

Map 4.3

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Five of these wells produce 22.7 or less l/min. (5 or less igpm) and are in aquifers of sand and clay. Two wells produce 54.5 and 90.9 l/min.(12 and 20 igpm) and are in formations of a clay and gravel mix.

The quality of the bored wells is generally good and comparable to what is experienced in other areas of the province. Gas is not a problem. Some wells have high iron content, but this can be reduced with indoor plumbing and a water conditioner (Hardick, 1981).

Another source of drinking water on East Prairie is water that is hauled from Joussard and stored in a 72,720 litres (4000 gallon) tank near the Settlement Office. This supplies the hall and the Office. Most residents however still draw water directly from the river or rely on surface seepage into dugouts or cisterns. Only two or three residences have running water and septic tanks.

Aside from the water quality problems, water wells are a practical method of water supply on East Prairie. Wells are site specific and provide a water source close to the home. This is particularily important at East Prairie as the homes are dispersed, making a water distribution system very expensive. Water wells are also convenient in that water flow volumes are relatively consistent throughout the year.

Map 4.3 illustrates the location of groundwater probabilities on the Settlement. The highest probability area is in the north along the East Prairie River. Shallow flow systems in this area should produce from 113.6 to 454.6 l/min (25 to 100 igpm). Fringing this zone is an area with the potential production of from 22.7 to 113.6 l/min (5 to 25 igpm). A large part of the Settlement, including the hamlet, has a groundwater probability of from 4.5 to 22.7 l/min (1 to 5 igpm). The remainder of the Settlement consists of low yield bedrock sources.

The shallow aquifer encountered in the bored wells is very predictable and present over most of the Settlement. The water quality is good and the wells are generally good producers. Any plans for development must ensure that this valuable resource is not contaminated, as shallow or bored wells can serve the needs of the community on an individual basis for the foreseeable future (Hardick, 1981).

To better realize the water well potential settlers should install indoor plumbing and cisterns. In this way well water could be stored, properly treated, and made more accessible. Conditioners could be used to soften the water and Greensand filter would effectively remove the iron from the water.

4.5 Agriculture

4.5.1 Soil Capability for Agriculture

The potential for agriculture on East Prairie is related to many factors of production, both physical and socio-economic. The socio-economic factors are dealt with in 4.5.2 Agricultural Development. The physical factors are the land resource characteristics, including: soil capability, topography, and climate. The limitations on agricultural production due to climate (lack of moisture in spring, variable number of frost-free days) and topography (steep slopes which preclude mechanized practices and accelerate soil erosion) were discussed in Sections 4.1 and 4.2.

This section focuses on soil capability, one of the most important factors in growing crops and sustaining livestock. The soils on East Prairie are diverse, with some types being more favourable for farming than others. Soils range from high capability to those having no capability under conventional agricultural practice. The soils capability information utilized in this inventory is based on Canada Land Inventory (C.L.I.) data and information obtained from the Settlement Council. It should be noted that C.L.I. data are very general and should only be used until detailed soil capability inventories are available.

For the purposes of this report, the applicable C.L.I. classifications have been combined and simplified into the soil categories of: higher capability, moderate capability, lower capability and organic (see Map 4.4). Higher capability areas include those comparable with C.L.I. class 3; moderate capability includes lands which are C.L.I. class 4; while the lower capability includes

C.L.I. classes 5, 6 and 7. The areas identified by Council as having agricultural potential are also mapped.

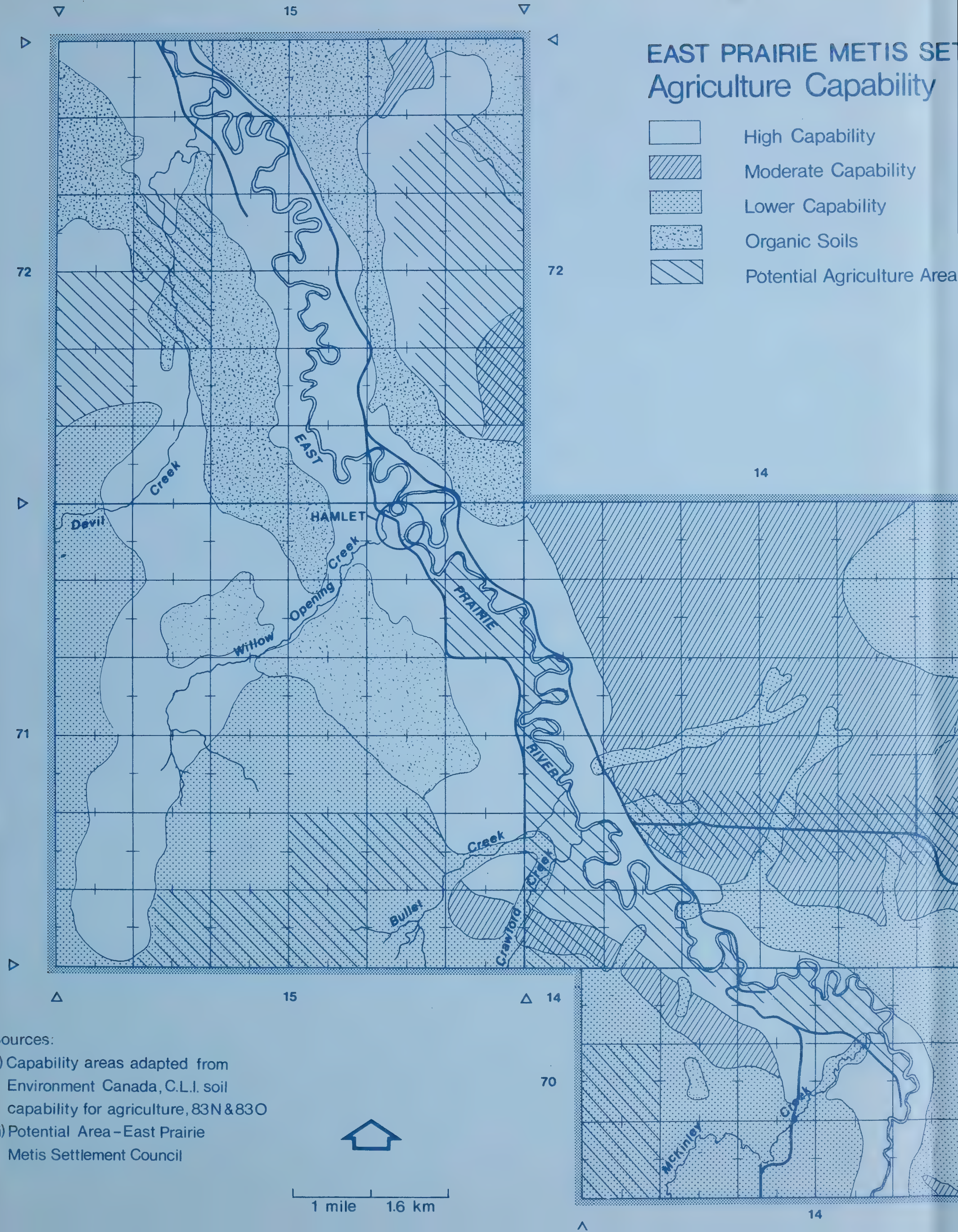
The area of highest soil capability for agriculture is found in the southwest portion of Tsp. 71, Range 15. The main limiting factor in this zone is the climatic condition common to the entire Settlement. The topography is undulating to gently rolling and the soils moderately well drained. With good management these soils have fair to moderately high productive capability for a fair range of crops. This area is presently undeveloped for agriculture.

The second area of higher soil capability includes most of the terrace land along the East Prairie River. The main physical limiting factor here is that there are many areas of steep slopes. The large, flat alluvial terraces, however, are moderately well drained and are capable of producing good forage crops. Most of the present farming takes place in this area along the East Prairie River.

The remainder of the higher capability agricultural soil is located in the far eastern and far western sides of Tsp. 72, Range 15. In the eastern area, soil structure and excessive water are physical limiting factors, whereas the physical limiting factor for the area on the western side is soil structure. The soils are grey wooded heavy loam to clay loam, and are well to moderately well drained. These two areas offer good potential for forage production, although road access is not available. Again, with good management all the areas with higher soil capability have fair to moderately high production potential for a fair range of crops.

EAST PRAIRIE METIS SET
Agriculture Capability

☐ High Capability
▨ Moderate Capability
▨ Lower Capability
▨ Organic Soils
▨ Potential Agriculture Area



Sources:
(i) Capability areas adapted from Environment Canada, C.L.I. soil capability for agriculture, 83N & 83O
(ii) Potential Area - East Prairie Metis Settlement Council

Map 4.4

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The moderate soil capability area covers most of the eastern slopes of the Settlement. The soils are grey wooded loam to heavy loam and the topography characterized by long, moderately drained slopes. Although these soils are relatively low in natural fertility and are low to fair in productivity for a fair range of crops, they may have high productivity potential for a specially adapted crop such as forage.

The lower capability areas are located in the southern half of the Settlement (see Map 4.4). They have lower capability due to adverse topography, low soil fertility, and excessive wetness. These areas have very limited potential for crop production, however, with brushing, seeding, fertilizing, and water control, a portion of the lower capability areas may sustain some forage production or provide some sustained grazing.

The organic areas include extensive sites of organic soils. Without drainage, these muskeg areas have no capability for conventional agriculture.

In summary, although the C.L.I. inventory indicates there is little potential for long season wheat and warm temperature vegetables, there are few insurmountable soil and climate limitations for the production of short season barley, oats, rapeseed, and some grasses and legumes for seed, hay and pasture. Wet soils should not really present a limitation in areas of limited precipitation since drainage can often be improved through removal of vegetative cover (Hennig, 1981; Mills, 1981). Because of the shortcomings of the C.L.I. data for work at this scale, a more detailed agricultural capability inventory should be undertaken.

4.5.2 Agricultural Development

In the previous subsection on soil capability, the potentials and limitations of the physical resource were examined. This subsection addresses the existing agricultural development and some of the socio-economic factors which affect production.

Due to a number of general factors, farming in northern Alberta on "marginal" agricultural land is a risky business with additional uncertainties not found elsewhere in the province (Northern Alberta Development Council, 1978). The number of frost-free days fluctuates widely and precipitation varies. Due to the low farm population density, farm supply and farm marketing are more uncertain. Northern farm research is not as well developed as it is in southern Alberta. However, the need to carefully balance cereal crop production with forage production to maintain and enhance the productivity of gray wooded soils is well recognized. Similarly the need to select early maturing varieties and cool climate species is understood (Graves, 1981).

The important socio-economic factors include (Beattie, Bond and Manning, 1981):

(1) land, (farm size, fragmentation, percent improved land, distance to market);

(2) labour (age, education and skills, expectations and other opportunities, part-time or full-time, productivity);

(3) capital (income and cash flow deficiencies, credit sources available, mechanization, agricultural infrastructure, marketing organization, community infrastructure); and

(4) management (knowledge, technology and practices available, capacity to innovate or adapt, crop/livestock selection, intensive/extensive farming strategy).

Several of the above factors affect existing and potential agricultural production on the Settlement. The comments regarding these factors and therefore the productive potential are based on discussions with Settlement Councillors, Metis Development Branch staff, the District Agriculturalist, and an Alberta Agriculture consultant. Suggestions from Agriculture Canada and other Alberta Agriculture staff are also included.

Despite the limitations, increased production of suitable grains, oilseeds, forage and livestock would be a major stabilizing factor for the Settlement in terms of jobs and future revenues (Horton, 1981).

Agriculture plays a major economic and cultural role on East Prairie. Much of the terraced land along the river is devoted to farming. The extent of land allocated to settlers is shown on Map 4.5. There are 20 families actively involved in farming, five of which are new farmers. There are five swathers and several combines owned and operated by local residents. Oats and barley are the major grain crops, some of which are sold off-settlement. Tame hay is grown extensively to support the cow-calf operations.

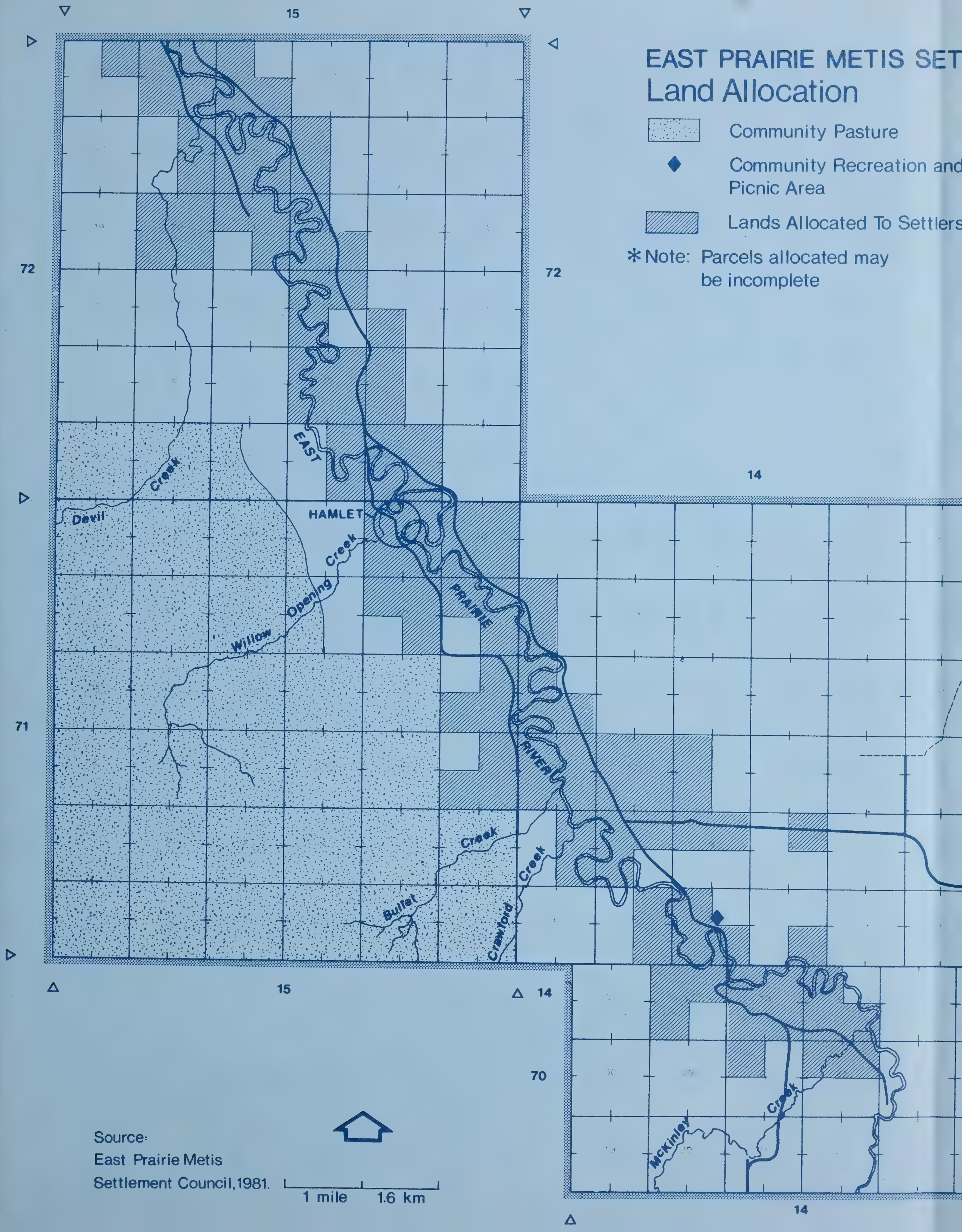
Throughout the past thirteen years, the amount of developed farmland has increased markedly (see Map 4.6). In 1968, there were 320.7 hectares (ha) or 792 acres (ac) of developed land on the Settlement (Metis Development Branch, 1968). A recent field survey by Municipal Affairs staff (1981) shows a total of 550.2 ha (1359 ac) of cultivated farmland. This consists of 113 ha (279 ac) of grains and 437.2 ha (1080 ac) of tame hay. Further, 125.5 ha (310 ac) of improved pasture and 149.4 ha (369 ac) of unimproved pasture exist. These data are summarized in Table 4.3.

4.3 FARMLAND AND PASTURE

FIELD TYPE	AREA	% of TOTAL
Grains	113 ha (279 ac)	13.7 %
Tame Hay	437.2 ha (1080 ac)	53.0
Improved Pasture	125.5 ha (310 ac)	15.2
Unimproved Pasture	149.4 ha (369 ac)	18.1
TOTAL	825.1 ha (2038 ac)	100.0 %

It should be noted that the crop rotational patterns used on the Settlement will cause changes in these figures over time. Typically a field is held in grains for three years, is put in forage for three, and then is left in summer fallow for the next year. This process is then repeated, thus preserving or building-up the nutrient content in the soil. For the purpose of this inventory, the 1981 data may be taken as an average for all years within the rotational pattern.

The grains in Table 4.3 involve lands that are regularly cultivated. This class is made up of feed crops for livestock (e.g., oats and barley), cash crops (e.g., wheat and rye), and summer fallow. Most grains on the Settlement are used as feed for livestock. In total there are seven grain fields of which the average size is 16.1 ha (39.9 ac). These are generally medium sized fields that are all situated within the terrace land along the East Prairie River (see Map 4.6).



EAST PRAIRIE METIS SET
Land Allocation

- ░ Community Pasture
- ◆ Community Recreation and Picnic Area
- ▨ Lands Allocated To Settlers

*Note: Parcels allocated may be incomplete

Source:
East Prairie Metis
Settlement Council, 1981.

Map 4.5

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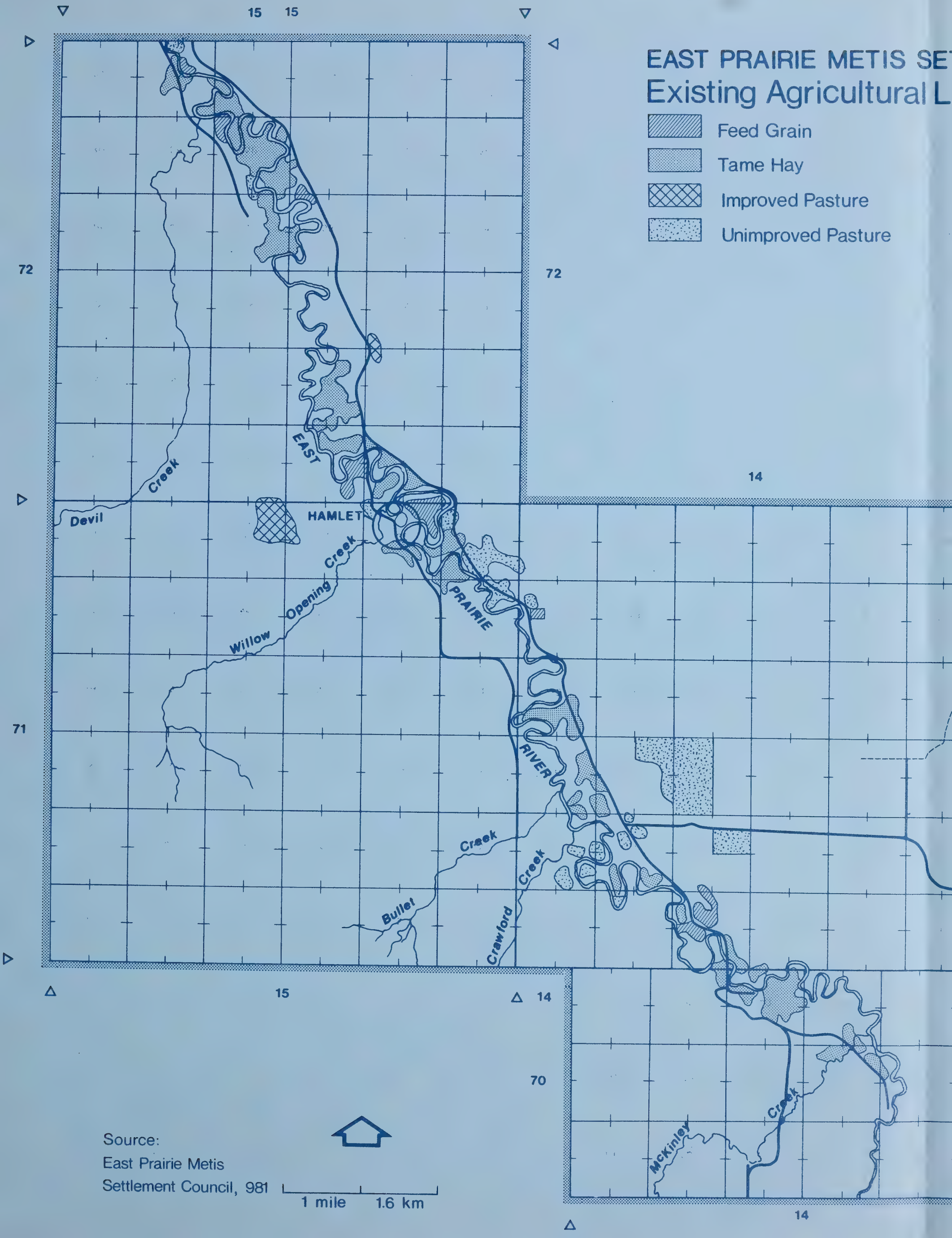

EAST PRAIRIE METIS SE

Existing Agricultural L

▨ Feed Grain

▒ Tame Hay

▩ Improved Pasture

░ Unimproved Pasture

Source:
East Prairie Metis
Settlement Council, 981

Map 4.6

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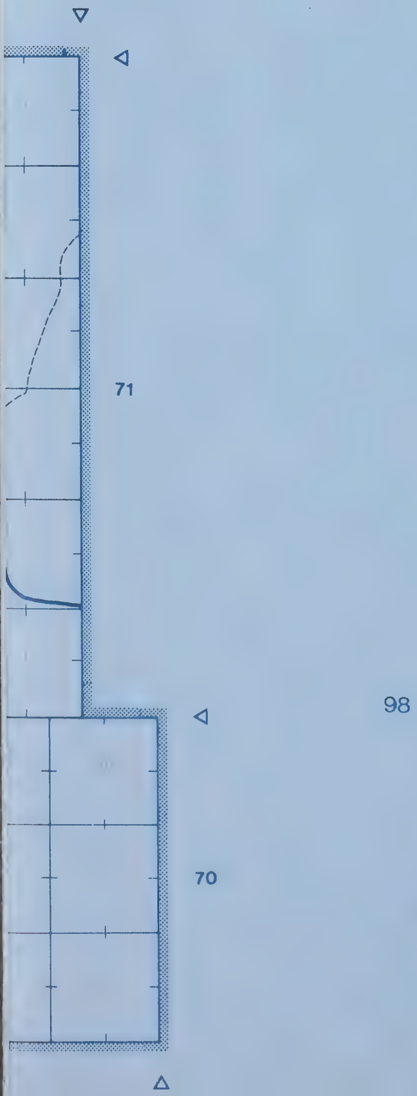
Land Use



There are 25 tame hay fields on East Prairie at an average of 17.5 ha (43.2 ac) per field. Most of these are small to medium sized. The largest tame hay field is 47 ha (116 ac). Crops in this class include perennial forages such as brome, fescue, timothy, and clover. These are also located within the terrace land along the river.

The number of smaller sized grain and tame hay fields is of concern to local farmers and the Settlement Council. Piecemeal clearing is seen as a limiting factor to agricultural development. Rather than clearing many smaller areas, efforts should be made to create fewer, more viably sized fields and farm units. As fields of less than 40.5 ha (100 ac) are not seen as viable farm units, consolidation or field expansion should be considered in the future.

Map 4.4 indicates several areas of potential expansion for these crops. First, areas could be cleared along the East Prairie River, both around the fringes and to the south of existing fields. A second potential site is the zone of high capability in the southwest portion of Tsp. 71, Range 15 (see Map 4.4). Both this area and the area to the south of the existing cropland require road access before agricultural development can occur. Grains and tame hay could be expanded into the moderate capability area, but heavy equipment would be required to break and work down the land.

The third category of agricultural land on the Settlement is improved pasture. This consists of 125.5 ha (310 ac) of land that has previously been worked down and seeded, and is now being used for grazing livestock.

The fourth field type is unimproved pasture and consists of 125.5 ha (310 ac) of recently cleared land, native hay meadows, or land that has largely regenerated back to a natural state. There are also 10 native hay meadows at an average of 10.3 ha (25.4 ac) per field. These meadows are important in the support of livestock grazing.

In addition to the above, East Prairie has a community pasture allocated in the southwest portion of the Settlement (see Map 4.5). Thirty-two sections have been designated for this purpose, of which six are now fenced. This area offers much potential for future use as cropland and grazing land.

Although most of the lands rated as having higher capability for agriculture have been developed, much land remains to be cleared in the moderate class. The cost of bringing bush land into production is an important factor to consider. Medium bush costs at least $100 to $125 per acre to develop (Reid and Bradford, 1977). Furthermore, three to five years are required to develop the land to the stage where a return on investment is realized. The use of fire to maintain grasslands should be considered. This Native range management technique could be an effective and inexpensive way to prevent cleared areas from regenerating to bush (Lynch, 1981).

Potential for agriculture also exists in livestock. At present there are approximately 300 cattle, 100 fowl, 50 horses, and six hogs on the Settlement (Settlement Council, 1981). More intensive operations such as feedlots would increase the viability of raising livestock. Further, a potential exists in the raising of draft horses for export and riding horses for the recreational market.

The land related factors of farm size, fragmentation, percent improved land, relative distance to transportation and markets have a strong influence on future development of agriculture. Because existing farms are small in size and fragmented (due to piecemeal clearing, the pattern of the river and oxbow lakes, and limited road network) future decisions should consider consolidating existing allocations into larger more viable units and clearing larger tracts, perhaps in sectors.

Allocation of new quarters should be directed to applicants who have demonstrated farming experience, and adequate equipment and capital to develop the land. Although the amount of cultivated land has nearly doubled since 1968, there is substantial potential for additional development, both for grain crop land and improved pasture (see Map 4.4 and 4.5). Prior to allocating new agricultural parcels, legal surveys should be taken to establish guarter section line boundaries. Development of the community pasture would incorporate some of the above suggestions, as would development of the considerable amount of allocated land not being farmed.

Transportation is currently a limiting factor inhibiting agricultural development, and future road locations should be planned to provide access to the areas with higher agricultural potential (see Map 4.4). Prior to extending roads into new agricultural areas soil samples should be tested for agricultural capability. Grains can be marketed in nearby High Prairie, but the nearest livestock market is Valleyview, 77.2 km (48 mi) away.

The labour related factors of age, education, skills, expectations, other opportunities, part-time or full time farming, and productivity also affect the future of agricultural development. It would appear that the settlers involved with farming are younger than the provincial average. Few of the farmers have taken formal agricultural training, but many have experience with cow-calf operations and horses.

The opportunity for other employment both on and off the Settlement has positive and negative implications. On the one hand, it may discourage residents from farming as intensively as possible and take farmers away during crucial periods. On the other hand, it can provide much needed capital to put into the farming operation. Given the size of the farm units it would appear that most of the farmers are part-time in that they receive substantial portions of their income from off-farm employment. This has a tendency to reduce the intensity to which the land is farmed and can make farm credit more difficult to obtain.

The capital related factors for agriculture cannot be ignored. Expansion of existing farm operations, more intensive management of the land, and establishment of new farms will all require extensive capital inputs. Increased mechanization will also require additional capital. Some of the capital could be generated through the sale of grain and hay, and from off-farm employment, but capital assistance will likely be required if significant expansion of agricultural production is anticipated. Bank credit is often unavailable to settlers as they do not hold title to the land. The costs of obtaining large and new machinery could be offset by either sharing equipment among settlers, or by leasing equipment which also could be done on a shared basis. Another alternative would be for the beginning farmers to hire out to off-Settlement farmers in return for the use of equipment. Beginning Metis farmers could also take advantage of Alberta Agriculture's "green thumb" program under which a younger farmer works for an established farmer learning farming skills, while Alberta Agriculture subsidizes his salary.

Management can also influence agricultural production potential. Settlement farmers, like many other farmers in northern Alberta, could benefit from new agricultural practices and technology. The limitations and constraints involved with successfully farming marginal agricultural land are considerable. The Settlement farmers, although lacking in formal agricultural training, seem quite resourceful and adaptive.

The type of crop/ livestock selection presently being practiced is suited for East Prairie and has potential for expansion and diversification. Production levels could likely be increased through a more intensive arrangement, e.g., crop selection and crop rotation pattern. Furthermore, existing practices could be supplemented and diversified.

Honey production, an activity common in the High Prairie area, would be complementary to forage production. Skills could be learned from successful producers in the area and large amounts of capital are not required. Hardier market crops such as potatoes may have potential. Lands along the East Prairie River would likely be suitable for irrigation should it be required. The commercial production of other market garden crops such as blueberries, chokecherries, or wild rice could be investigated.

Prior to the expansion of agricultural activities, however, it is recommended that Council and the farmers interested in expansion or diversification consult with the District Agriculturalist and the Beaverlodge Agricultural Research Station for advice. Assistance is also available for the preparation of an agricultural development strategy. In this way, existing productive levels could likely be improved and the uncertainties associated with expanding agriculture could be reduced.

The establishment of an agricultural service board type committee should be considered. This committee would function as a service board promoting agricultural development, and coordinating programs between Council, farmers and government departments.

In summary the main socio-economic limitations to significant agricultural development relate to the high capital, high technology, and high management requirements of today's agriculture (Graves, 1981). If the above suggestions were implemented, some of the limitations could be reduced.

4.6 Forestry

East Prairie is situated in the Boreal Forest Region and has mixed forest cover. The typical species of potentially commercial value are white spruce, trembling aspen, and balsam poplar. Black poplar (Balm, a balsam poplar species) is found on the Settlement and was cut for pulp several years ago, but currently has no commercial value. Areas of muskeg are generally treed by black spruce. Throughout the Settlement there are extensive areas of medium stocked deciduous trees of less than 18 m (60 ft) in height. Isolated stands of white pine are common.

The information on forest capability in this section is based on Canada Land Inventory (C.L.I.) forest capability, and discussions with the Settlement Council and Alberta Forest Service staff. To simplify the C.L.I. classification system, two categories are used. As no C.L.I. classes 1 through 3 exist on East Prairie, class 4 C.L.I. for the purposes of this report is considered to have moderate forestry capability. The only other C.L.I. category found in East Prairie is class 7, which again for the purposes of this report is considered to have lower capability for commercial forestry. Council also indicated an area with logging potential. All the above areas are shown on Map 4.7.

Map 4.7 shows there to be three general areas that describe the forestry capability of the Settlement. The first is described as having a moderate capability for forestry. This area generally corresponds with the alluvial terraces along East Prairie River. Its main limitation is that many areas have excessive moisture in the soil. In the drier portions, however, the soil has sufficient depth and structure to support good stands of white spruce and deciduous species. Productivity in this zone will usually be from 1.4 to 6.5 cubic metres (51 to 70 cubic feet).

The second area is similar to the first in its productivity capability. It has a moderate capability for forestry and supports the production of white spruce, aspen, and poplar. This area encompasses most of the long, gentle slopes to the east and west of the river terraces. The main limitation in this zone is a lack of moisture due to a low moisture holding capacity in the soil.

The third area has a poor land capability for forestry. It consists of areas of excess soil moisture. Productivity is usually less than 0.2 m^3 per 0.4 ha per year (10 ft^3 per year) with the predominant species being black spruce.

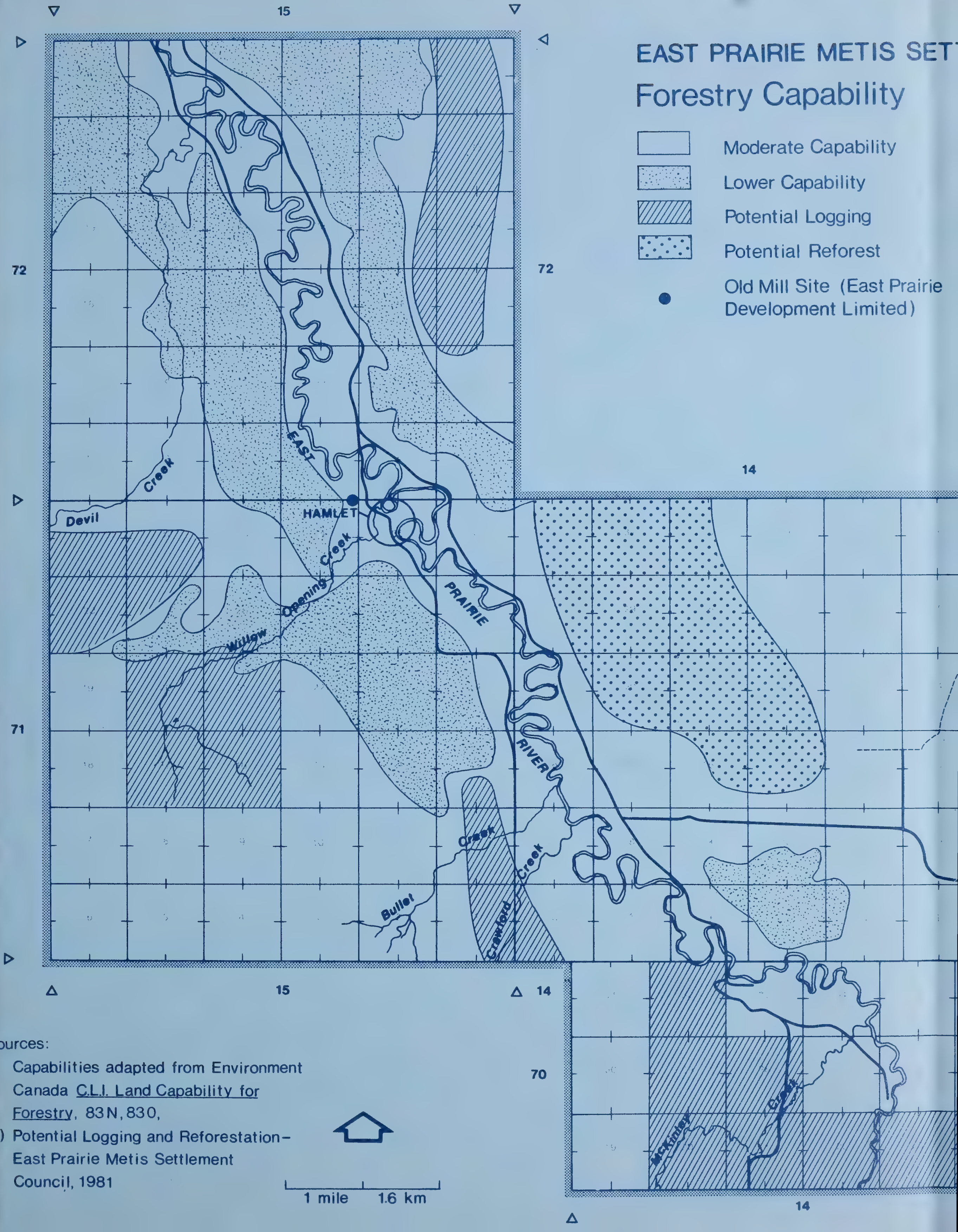
Until recently, most of the logging was conducted in a site in the western portion of the Settlement. This western site has a stock of timber, but will require about 10 years to mature (see Map 4.7). Two other stands of white spruce are also reported by Council. The first of these is in the northeast portion of the Settlement and the second is located along Crawford Creek. Sauze Forest Service consulting estimates there to be about 1,000,000 foot board measure of timber left.

Although now in receivership, the Settlement-operated East Prairie Developments Ltd. used to hire 12 residents in the mill and plant on a full time basis, and up to 30 in the bush during winter. Management problems and poor market conditions attributed to the failure of this company.

The future viability of forestry also depends upon increased timber management. Council should adopt a policy of sustained yield and reforestation to maintain forest reserves over a long period of time. Allowable cuts by designated area must be established and adhered to. Reforestation would also be a step towards long term forest management. Map 4.7 shows a possible reforestation site suggested by the Council. An up-to-date timber inventory (including poplar and aspen) should be undertaken.

EAST PRAIRIE METIS SET

Forestry Capability



Sources:

i) Capabilities adapted from Environment Canada C.L.I. Land Capability for Forestry, 83N, 830,

ii) Potential Logging and Reforestation– East Prairie Metis Settlement Council, 1981

Map 4.7

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Although there is currently no market for the poplar and aspen reserves, if the flakeboard plant proposed for nearby Enilda proceeds, a ready market will be created. This will generate both on and off-Settlement employment. In preparation for this, it is recommended that a policy of sustained yield and reforestration be considered for deciduous trees. Future forestry studies on the Settlement should involve poplar and aspen as potentially commercial forest resources.

Maintenance and further development of the forest industry at East Prairie is very important as it creates on and off-Settlement employment for residents, produces revenue for the Settlement, utilizes and develops local manpower skills, and provides management experience. If properly handled, forestry can become a valuable renewable resource, especially if a processing plant for deciduous timber is developed. Forest cutting activities could be co-ordinated with game ranching operations (see Section 4.7).

4.7 Wildlife Resources

Hunting and trapping on East Prairie are carried out primarily for domestic purposes. Fur bearing animals are declining in importance as an economic and food source.

Moose and deer are common to most areas on the Settlement. Moose is hunted regularly and provides an important dietary supplement. According to the Canada Land Inventory (C.L.I.), most areas on East Prairie have moderate to very high capability for ungulates (deer, moose, elk). For the purposes of this report, the C.L.I. classifications have been simplified as follows: class 2 is very high capability, class 3 is higher capability and class 4 and 5 are considered moderate capability. The three capability categories are shown on Map 4.8.

Two areas have very high capability for ungulates. These two sites in the southeast and northeast corners have very few limitations to the support of ungulates, although adverse topography and lack of nutrients in the soil may limit animal densities. The area to the southeast provides an important winter range on which animals from surrounding areas depend.

The higher capability area shares the same limitations as the two very high capability areas. It is also further limited by poor soil moisture (either too much or too little).

Moderate capability habitat covers most of the Settlement. The limitations include soil moisture, low fertility, and adverse topography.

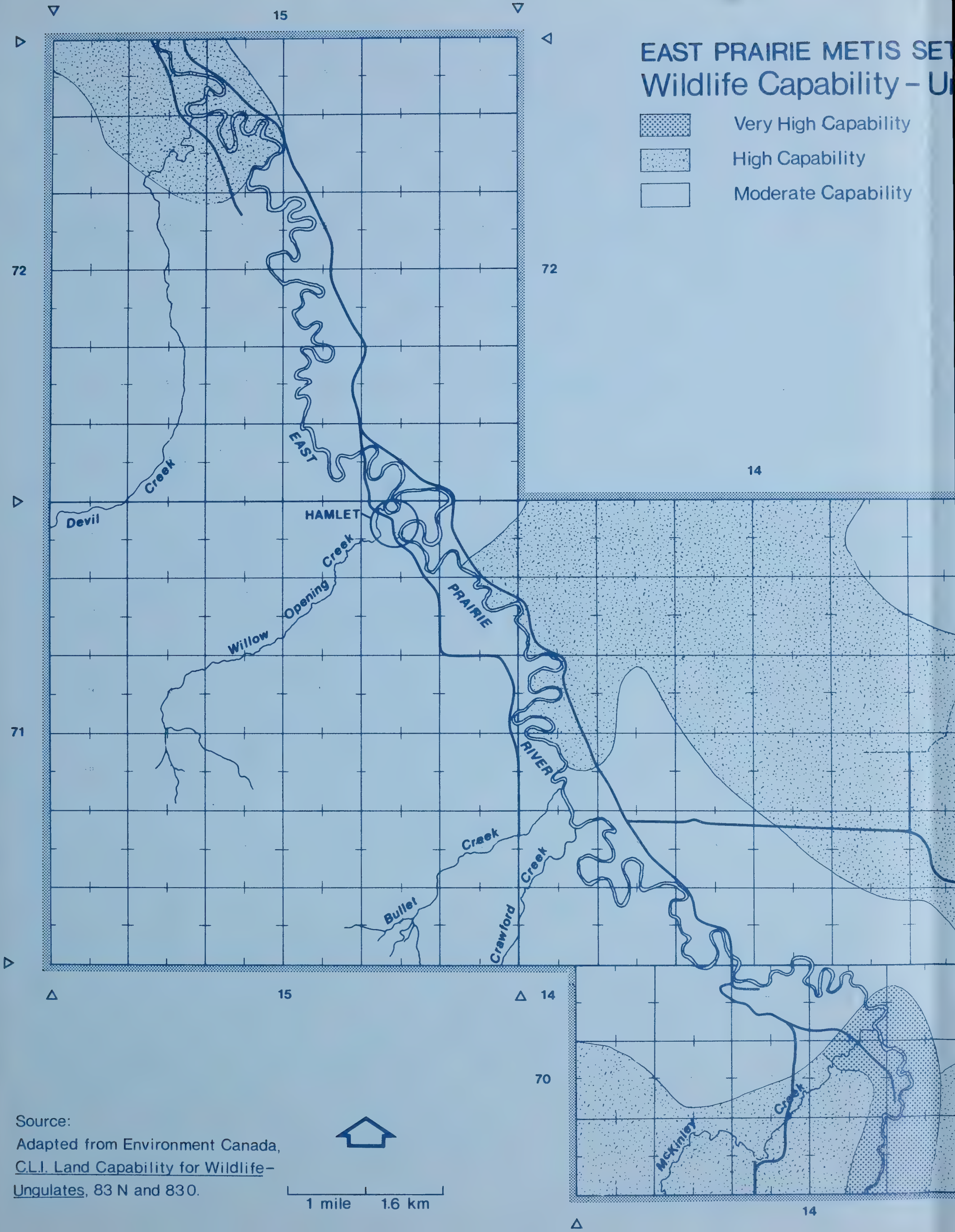
One method to intensify the production of ungulate species is to initiate game ranching. This concept can involve the management of mixed ungulates (usually buffalo, moose, elk, and deer) or a single species such as buffalo within an area enclosed by a game proof fence.

EAST PRAIRIE METIS SET
Wildlife Capability – U

▩ Very High Capability

░ High Capability

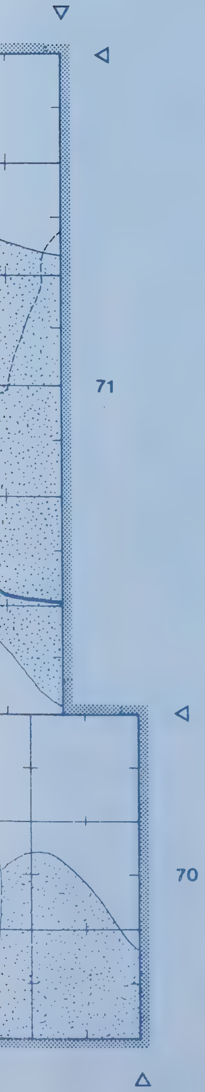
☐ Moderate Capability



Source:
Adapted from Environment Canada,
C.L.I. Land Capability for Wildlife–
Ungulates, 83 N and 83 O.

Map 4.8

ETTLEMENT
Jngulates



Game ranching could provide permanent employment, subsistence meat, materials for crafts, bison for meat sales, and elk for sale to game farms as breeding stock. Game ranching could be economically feasible and culturally compatible. The capital costs of establishing such an operation are not excessive. It would be energy efficient and inexpensive to maintain. One limitation, however, is the current absence of agricultural programs to provide technical advice and low interest loans (Lynch, 1981).

Market conditions are also favourable for the sale of "specialty red meat". Because the Settlement contains large tracts of marginal agricultural land suitable for raising ungulates, game ranching would make efficient use of the land. Development of a game ranch could be compatible with forestry operations, if properly coordinated.

A pilot project involving the raising of buffalo has been established at Kikino Metis Settlement under the management of the Kikino Wildlife Ranching Association. The results of this project should be monitored to assess its applicability for East Prairie Settlement.

Six residents trap beaver and muskrat during the spring. Fishing on-Settlement is limited to sport fishing on the East Prairie River. Three to four families engage in seasonal commercial fishing off-Settlement.

5.0 Human Resources

This chapter examines the historical background, administration, population, employment and community participation on East Prairie Settlement. Many of the characteristics or elements of culture and day-to-day living on East Prairie are common to all eight Metis Settlements (Ghostkeeper, 1981):

> "The culture and lifestyle of native people is one which is closely linked with the environment. Many native families obtain a significant portion of their food from the land. Fishing, hunting, and the collection of naturally occurring fruits and gardening is a common practice on the Metis Settlements. The use of these foods allows many families to eat well on a relatively small annual income. Many families have a small income because of the lack of full time employment opportunities. However with seasonal employment, trapping and in some cases farming, many families are able to make a good living. An outside observer may consider our communities to be poor. Financial poverty, however, should not lead one to conclude that these communities are socially, psychologically or culturally poor. Money and material possessions are not highly valued in our culture, rather our way of life places a strong emphasis on family unity and daily living".

5.1 Historical Background

East Prairie was established as a Metis Colony in 1939 under the Metis Betterment Act. Its name is derived from the East Prairie River which flows from south to north through the Settlement. The first two settlers were Charlie Bellerose and George Harvey, followed by the Augers and L'Hirondelles. By 1945, the population had risen to 58. Since then the population has climbed to 307 according to the 1981 Metis Development Branch census.

The early economic base included trapping, hunting, farming, undertaking public works projects for the colony supervisor, and firefighting. Later, logging grew in economic importance. Most of the early food needs were met by the hunting of moose and deer, and by growing garden vegetables.

Early houses were constructed from logs and had sod roofs. The first standard or conventional wood frame house was constructed in 1959, and since 1968 standard housing has become available on a priority basis as established by Council (see section 6.1).

Regarding public works and community infrastructure, the first public school and teacherage were built in 1945. (Since 1967 school children have been bused to High Prairie). After numerous previous bridges (both wood and steel) across the East Prairie River were washed out during spring runoff, a more lasting steel bridge was built in 1967-68. The "Church of the Good Shepherd" was moved in from Enilda in 1967 and the gravel road from Enilda completed in 1968. Electricity was extended into the Settlement the next year. In 1971 a Community Vocational Centre (C.V.C.) was set up and in 1972 Alberta

Opportunity Corps started a sawmill and logging operation. A new community hall was built in 1975/76 and the School Lunch Program initiated. East Prairie Wood Products (now closed) was established in 1977 to produce granaries, sheds, furniture and cabinets. The information contained in this subsection is from the Settlement's history book, East Prairie Metis, 1939-1979, 40 Years of Determination, (1981).

5.2 Administration

When the Metis Betterment Act was passed in November 1938, the interests of the Settlements were largely in the hands of the Provincial Government. The Metis Rehabilitation Branch was the government agency set up to administer the day to day functions of the Settlement. Much of the local control and budgeting were handled by the area supervisor. Upon advice from the Council, the supervisor recommended services and regulations to the Branch. The Branch had authority over roads, agricultural and timber controls, housing, power lines, and schools.

Today's Council, consisting of five locally elected residents, assisted by a coordinator and a clerk, meet regularly to discuss needs of the Settlement, decide on applications for Settlement membership and land allocation, and submit recommendations for expenditures. The Metis Development Branch, now under the Department of Municipal Affairs, also has an area supervisor in High Prairie to assist the four western Settlement Councils. Authority over roads, education, housing, and utilities has been largely handed over to the respective government departments and agencies.

Finances for operational items are obtained from three sources:

1) Provincial appropriations (Settlement vote budget);
2) Metis Population Betterment Trust Fund, which includes annual revenues from oil surface leases, right of entry compensation (seismograph work), cattle sales where applicable, interest on the Trust Fund, land levies, and miscellaneous such as sale of gravel; and
3) Municipal Debt Reduction money.

Revenue for capital items is obtained from:

1) Municipal Debt Reduction money (held in the Metis Settlement Trust Fund);
2) Municipal Debt Reduction interest; and
3) Provincial appropriations (vote budget) from general revenue.

While the Metis Development Branch still administers the dispensation of these monies, the Council now is responsible for submitting the annual budget recommending how funds will be spent. The Branch is increasingly moving toward decentralizing administration to the Settlement Councils and their staff. The East Prairie Settlement Council is actively involved in locally initiated projects and development planning.

5.3 Population

The 1981 Metis Development Branch census undertaken by Council indicates a population of 307, whereas the 1980 Metis Development Branch census indicated a population of 271. The difference between the census figures appears in part to have been due to a change in survey methodology. The 1980 census counted only those residents residing on the Settlement at the time of survey, whereas the 1981 census included persons still registered as Settlement residents who were temporarily off-Settlement due to employment opportunities. Historically families and individuals have periodically moved on and off the Settlement due to employment or housing opportunities, and personal situations. Of all the settlers living on the eight Metis Settlements, 7.9% reside on East Prairie Metis Settlement.

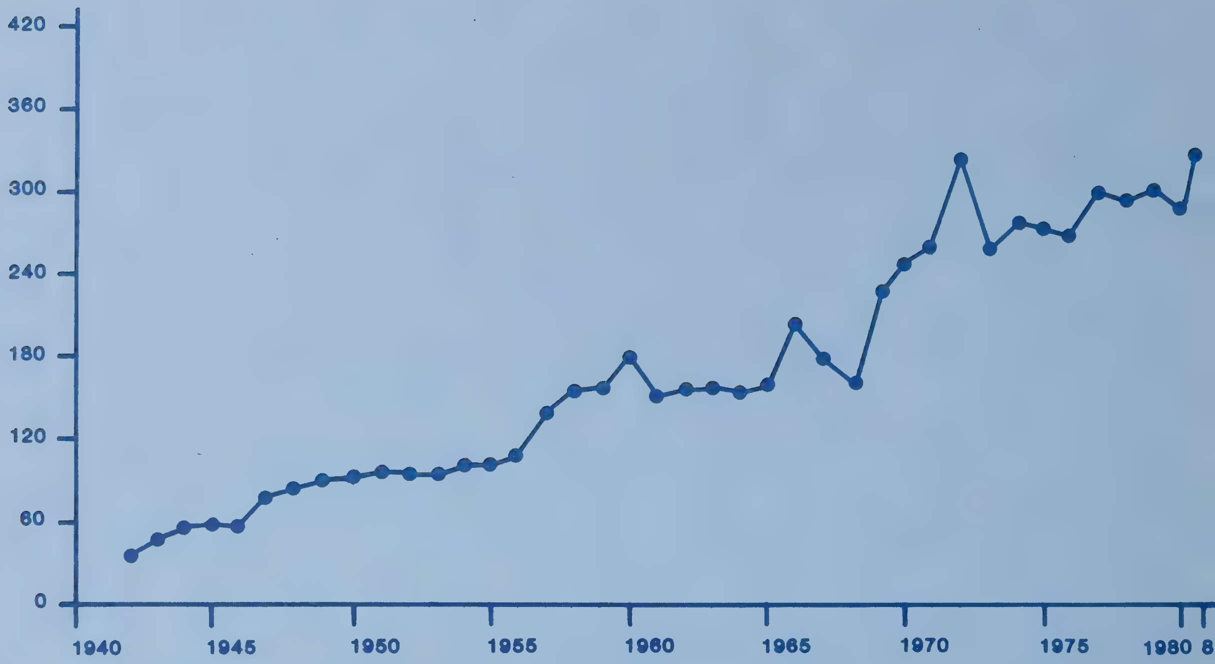
5.3.1 Population Trends

According to Metis Development Branch census figures, total populations of residents on East Prairie have remained fairly stable over the past decade. In 1970 there were only 27 fewer people residing on East Prairie than in 1980. Throughout the 1970's, populations have fluctuated up and down, but the overall trend is one of stability in total numbers of residents. Table 5.1 illustrates population change on East Prairie since 1942.

Population has risen every decade since 1940, although population growth has been slowing down over the past twenty years. Although total population has been relatively stable over the past decade, important changes are taking place within the age and family structures. Such influences are important in that they indicate trends towards future population structures and point to changes in community needs.

TABLE 5.1

POPULATION CHANGE 1942-1981



Source: Metis Development Branch

The first trend is that East Prairie is moving towards an older population. The 1970's saw a noticeable shift towards an increase in adult populations. In 1970, only 41% of the population were adults. In 1980 adults comprised 50.6% of the population and by 1981, 58.9%. Conversely, the percentage of the population being pre-school and in-school children is declining on East Prairie. In 1970, 59% of the East Prairie population was made up of pre-school and in-school children. In 1981 this had dropped to 41.1%. This trend is shown for the years 1970, 1975, 1980, and 1981 by Table 5.2.

5.2 POPULATION PROFILE

AGE GROUP	1970	1975	1980	1981
Pre-school children	63▲ (25.8)△	43 (15.3)	38 (14.0)	23 (7.5)
In-school children	81 (33.2)	109 (39.3)	96 (35.4)	103 (33.5)
Adults	100 (41.0)	137 (50.6)	181 (59.0)	125 (45.4)
Persons per family unit	6.0	5.8	5.0 (1979)	

▲ Absolute △ Percent of total settlement population

Source: Metis Development Branch

Even though 41.1% of the population being children is high compared to the Provincial average, East Prairie has shown a strong trend towards a maturing population. The number of pre-school children actually dropped by 25 during the 1970's. In 1970 there were 63 pre-school children and in 1980 there were only 38. By 1981 this figure had dropped further to 23. The number of in-school children rose by only 22 during the same time period. The adult population rose by 37 from 100 in 1970 to 137 in 1980, and to 181 persons by 1981.

The changing population structure is largely the result of a decrease in persons per family unit. As families have fewer children over time, family size drops. In 1970 there was an average of six persons per family unit. In 1975, this had dropped slightly to 5.8 and in 1979 family size was at an average of five persons in East Prairie. These figures are considerably higher than the 1976 average for northern Alberta of 3.8 (Northern Alberta Development Council, 1980), although they indicate a movement towards the norm for northern Alberta.

With family size declining, the influence that maintains the overall population level is net migration. Off-settlement residents returning to live on East Prairie as well as new members joining the Settlement compensate for lower rates of natural population increase. In 1977 there were 21 persons of resident status living off the Settlement. As some of these persons choose to return to East Prairie, and as new memberships are granted, the population on East Prairie is likely to continue to increase slightly.

5.3.2 Implication of Trends

Due to the slow down of growth rates over the past twenty years, and due to the relative stability of population during the past decade, it is expected that future population growth will be from slow to moderate.

In-migration as opposed to natural population increase, will therefore become a more important factor in influencing population change on East Prairie. Several external factors could stimulate the rate of in-migration. High off-Settlement farmland prices, housing costs and borrowing costs could encourage people to move to East Prairie. Creation of additional employment in the area (e.g., the proposed Enilda flakeboard plant) or resolution of the legal issue of subsurface rights ownership in favour of the Settlements would likely increase in-migration quickly.

The population will mature as people choose to have fewer children and as adults from outside the Settlement arrive to take up residency. Therefore, the nature of community facilities and social services should change to suit a more mature population. With smaller households and more residents, additional housing will be required.

5.4 Employment

Employment on East Prairie is generally divided between full time work for the government and temporary or seasonal work in the private sector. The largest single employment source for local residents is in the forestry industry. Other employment consists of farming, work related to the oil and gas industry, some work in the trades, and trapping. The employment base is outlined on Table 5.3.

As of July 1981, in the public sector two residents were employed by the Metis Development Branch. Three others were hired under the School Lunch Program, one collected garbage, and another operated a grader for the Department of Transportation. Besides these six permanent jobs, five students found temporary work under a Federally funded program. Permanent employment in the public sector is expected to remain at stable levels in the future.

The majority of residents in the labour force find temporary and seasonal work in the private sector. Twenty families were actively involved in farming on the Settlement. Five of these were new to farming, indicating a growing interest in the occupation. Five to six residents cut, brushed, and cleared seismic lines on a part-time basis. Other on-Settlement temporary work included one in welding, three in carpentry, two in mechanics, and six in trapping.

Numerically the most important work on the Settlement are jobs related to forestry. Contract logging is an important source of supplementary income to many local families. Forty-five residents take out logging permits. About 50 men serve on fire fighting crews on a seasonal basis, usually off-Settlement. About 40 residents were employed on a permanent and temporary basis at East Prairie Development mill and plant, but the operation has gone into receivership.

5.3 EMPLOYMENT BASE

Type of Employment	GOV'T.		Private Sector On Stmt.		Private Sector Off Stmt.	
	P	T	P	T	P	T
METIS DEVELOPMENT BRANCH	2					
SCHOOL LUNCH PROGRAM	2					
FORESTRY						
a) Contract				45✦		9–12
b) Mill Work					5	10-15
TRANSPORTATION	2▲					
FUNDED STUDENT WORK		5				
FARMING				20		
COMMERCIAL FISHING						4
FIRE FIGHTING		50				
OIL & GAS INDUSTRY						2
SEISMIC LINE CUTTING, BRUSHING, & CLEARING				5–6		
HEAVY EQUIPMENT OPERATORS				1	1	5
TRADES:						
a) Welder						
b) Electrician				1		
c) Carpenter				3		3
d) Mechanic				2		2
e) Plumber						
f) Other						
TRAPPING				6		
EDUCATION a) Professional	1▲					
b) Administration	1▲					
c) Bus Driving	2▲					

▲Government Off-Settlement

P: Permanent

T: Temporary

✦ Regard overlap between temporary jobs.

As of July 1981, five local sawyers commuted regularily to sawmills in Enilda and High Prairie. Both centres have major sawmill planing companies. From ten to fifteen residents were temporarily employed in sawmills in Enilda and High Prairie and from nine to twelve do off-Settlement contract work. (Several of these mills have now shut down due to declining lumber demand.) One resident operated a gravel truck for an off-Settlement contractor. Other off-Settlement seasonal work includes commercial fishing, fire fighting, and trapping.

Due to the close proximity of East Prairie to the employment centres of Enilda and High Prairie, off-Settlement work will likely continue to be a major source of income for local residents. In 1981 nearly half the workers found employment away from East Prairie. Most of this work was in the form of sawmill and heavy equipment operation work. The deciduous (poplar and aspen) forests represent additional forestry potential. A chipboard or flakeboard plant proposed for nearby Enilda would enable Settlement contracters to harvest poplar and aspen. The Settlement Council estimates there to be a ten year supply of these trees on the Settlement if active logging were to take place. Agriculture also holds employment potential if young farmers are encouraged to move in, and as the community pasture and other new areas are cleared, worked down and seeded. Another employment source may come from recreational developments. Council has recently considered reviving the commercial riding stable. Development of a ski hill on the slopes to the east of the hamlet has also been considered.

5.5 Community Participation

East Prairie has active formal social activities that are important to day to day life on the Settlement. Much of this activity takes place in community buildings and on community grounds in the hamlet. The community hall is used extensively for dances and weddings. Local musicians generally provide the entertainment for such functions. The School Lunch Program also operates out of the community hall.

An extension to the community hall is required to accommodate all of these events. Technical courses are offered through the Community Vocational Centre (C.V.C.) program in the hall. Six students are enrolled in a carpentry course for the 1981-82 season.

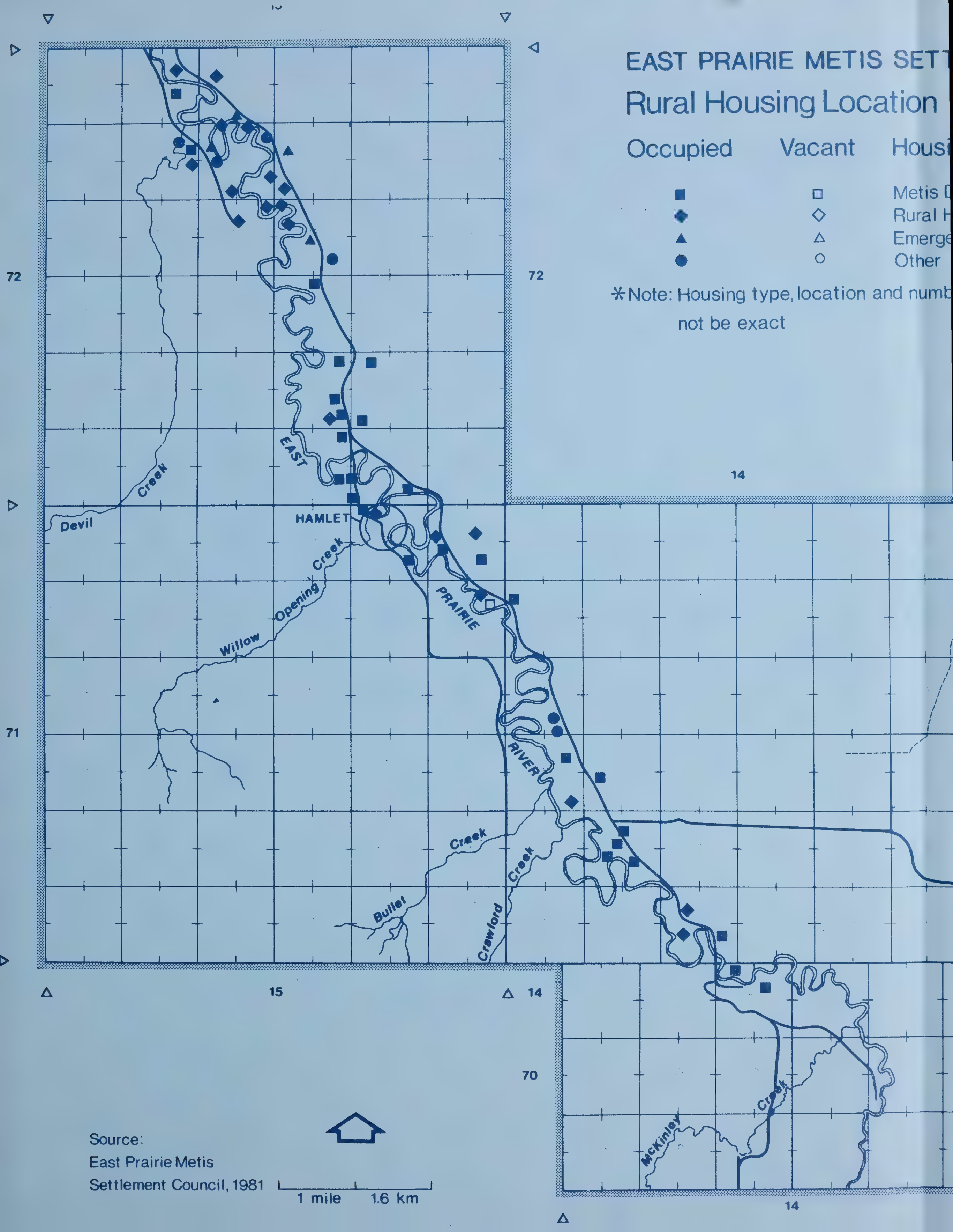
Recreation grounds in the hamlet include a baseball diamond and a skating rink. East Prairie is involved in the Northbush Rodeo Circuit and holds rodeos regularly at the rodeo grounds (see Map 4.5). South of the hamlet along the east side of the river, the Settlement is developing a recreation and picnic ground (see Map 4.5). This is a scenic area, with a good view of the river and surrounding areas. It is proposed by Council that the baseball diamond be relocated to vacant land immediately south of this site. Camping facilities and a shelter are also planned for the picnic site. Consolidation of recreational activities on this site is recommended. Several other areas along the East Prairie River also have potential for camping.

6.0 Housing and Infrastructure

6.1 Housing

The first standard (conventional wood frame) home on East Prairie was built in 1959. Prior to this, all homes were built out of logs, with sod for roofing. Floors in the original homes were unimproved. By 1970 the number of improved frame houses had risen to 30. Throughout the 1970's, housing conditions improved significantly. Both housing stock and housing utilities were bettered by means of local initiative and various housing programs. Today all homes along the main road have access to this service.

Map 6.1 shows locations of rural homes by funding source. Map 7.1 shows hamlet residence location and funding source. It should be noted that the number, funding source, and map location of residences may not be exact. This is due to several factors including the transient nature of trailers, changes in occupancy rates, and subjectivity as to whether or not a house is habitable.



EAST PRAIRIE METIS SETT

Rural Housing Location

Occupied	Vacant	Housi
■	□	Metis D
◆	◇	Rural H
▲	△	Emerge
●	○	Other

*Note: Housing type, location and numb
not be exact

Source:
East Prairie Metis
Settlement Council, 1981

Map 6.1

TTLEMENT

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using Funding Source

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al Home Assistance Program
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6.1.1 Housing Programs

East Prairie has been active in various housing programs. The four most significant of these past programs are mentioned below.

6.1.1.1 Metis Development Branch (MDB) Housing

Until 1977 most of the responsibility for housing rested with the Metis Development Branch. From 1962/63 to 1977, 467 housing units were provided to the eight Metis Settlements at a total cost of $1,646,900. This housing program is estimated to have provided 80% of the housing stock from 1962 to 1977 (Alberta Housing and Public Works, 1977). At present 42 of the 71 (or 59.1%) of the occupied homes on the Settlement come from this source. The majority of these are in need of repair or replacement.

6.1.1.2 Emergency Trailer Program (ETP)

This program is delivered by the Alberta Housing Corporation in conjunction with the Metis Association of Alberta. From the inception of the program until 1977, East Prairie accessed 10.6% of the ETP approvals (Alberta Housing and Public Works, 1977). There are now four emergency trailers on the Settlement.

6.1.1.3 Residential Rehabilitation Assistance Program (RRAP)

RRAP is a federal program administered by Alberta Native Development Corporation for CMHC. Grants and loans are provided to settlers interested in comprehensive home repairs. This includes work on foundations, heating systems and house additions. Eleven RRAP approvals have been granted to East Prairie at a financial support total of $36,000 (Alberta Housing and Public Works, 1977).

Two other programs of lesser financial impact are the Emergency Repair Program (ERP) and the Senior Citizen Home Improvement Program (SCHIP). ERP is administered by the Metis Association of Alberta under CMHC. It is intended to grant building materials to families who desire to upgrade their homes. East Prairie has had 39 approvals under the ERP at a total financial support of $34,400. SCHIP is designed to assist senior citizens in repairing and improving their homes. Four approvals have been made under this program.

6.1.1.4 Rural Assistance Program (RHAP)

Since 1977 the Rural Home Assistance Program (RHAP) has become an important housing source on East Prairie. Cost shared by Alberta Housing and Public Works and the federal Department of Regional Economic Expansion, RHAP is designed to help families and communities build their own new homes. As required by the program East Prairie has established a non-profit housing association to administer the local housing program. The Association acts as a co-ordinator in setting-up and running the program. It sets housing priorities based on the needs of the applicants and co-ordinates the housing project through to completion. The Association also acts as a liaison between local residents and Alberta Housing and Public Works. In the past five years, 20 new homes have been approved under RHAP. This represents a grant of $18,000 per unit (1981 rate) for construction materials. Grants for at least four homes are available per year. More home grants may be obtained in any given year, if the first four are successfully completed during the prescribed time period.

6.1.2 Present Housing Situation

The RHAP homes presently consist of 28.2% of the total housing stock. MDB homes make up 59.1% and Emergency Trailers represent 5.6% of the total existing homes. About 7.1% were privately funded. The present housing stock by funding source is outlined below in Table 6.1.

6.1 HOUSING STOCK

HOUSING TYPE	#	%
RHAP	20	28.2
MDB	42	59.1
ETP	4	5.6
Other	5	7.1
Total	71	100

6.1.3 Future Housing Needs

The 20 RHAP homes are all in good condition and have set a precedent for desirable housing quality on the Settlement. Of the MDB homes four are of equal the quality of the RHAP homes. These newer MDB homes have improved foundations. Five other MDB homes are in fair condition. The remainder of the MDB homes are in need of repair or replacement. The foundations, insulation, walls and roofs of these smaller, older homes are inadequate.

The poor condition of about half the total housing stock, combined with a housing shortage, is creating an accommodation problem on the Settlement. Many young couples are having to share accommodations with relatives as the number of available housing units is less than the number of new family units.

A positive step towards relieving the housing problem would be to increase the number of new homes constructed under RHAP each year. In 1981 fifteen residents applied for a RHAP grant. The possibility of building more than four houses per year should be considered by the Settlement Housing Association.

Another step would be to increase expenditures on repairs for viable older housing stock. A recent survey by Alberta Housing and Public Works of 41% of the existing houses on East Prairie identified five houses in need of major repairs (Alberta Housing and Public Works, 1980). These are homes that require comprehensive improvements of the structure of the home. The average cost of a major house repair is $2754.00. The study also identified 12 houses in need of minor repairs which would upgrade the home and extend its life. The average cost of a minor repair is $1552. As the study surveyed 41% of the housing stock, it is fair to assume that there are approximately 12 houses in need of major repairs and 29 requiring minor repairs on the Settlement. Funds are available for such purposes under the Alberta Rural Repair Program.

Emergency trailers under the ETP also serve to alleviate sub-standard housing situations and are available through Alberta Housing Corporation. Additional housing could also be made available if Settlers were encouraged to fund and build their own homes.

6.2 Infrastructure Services

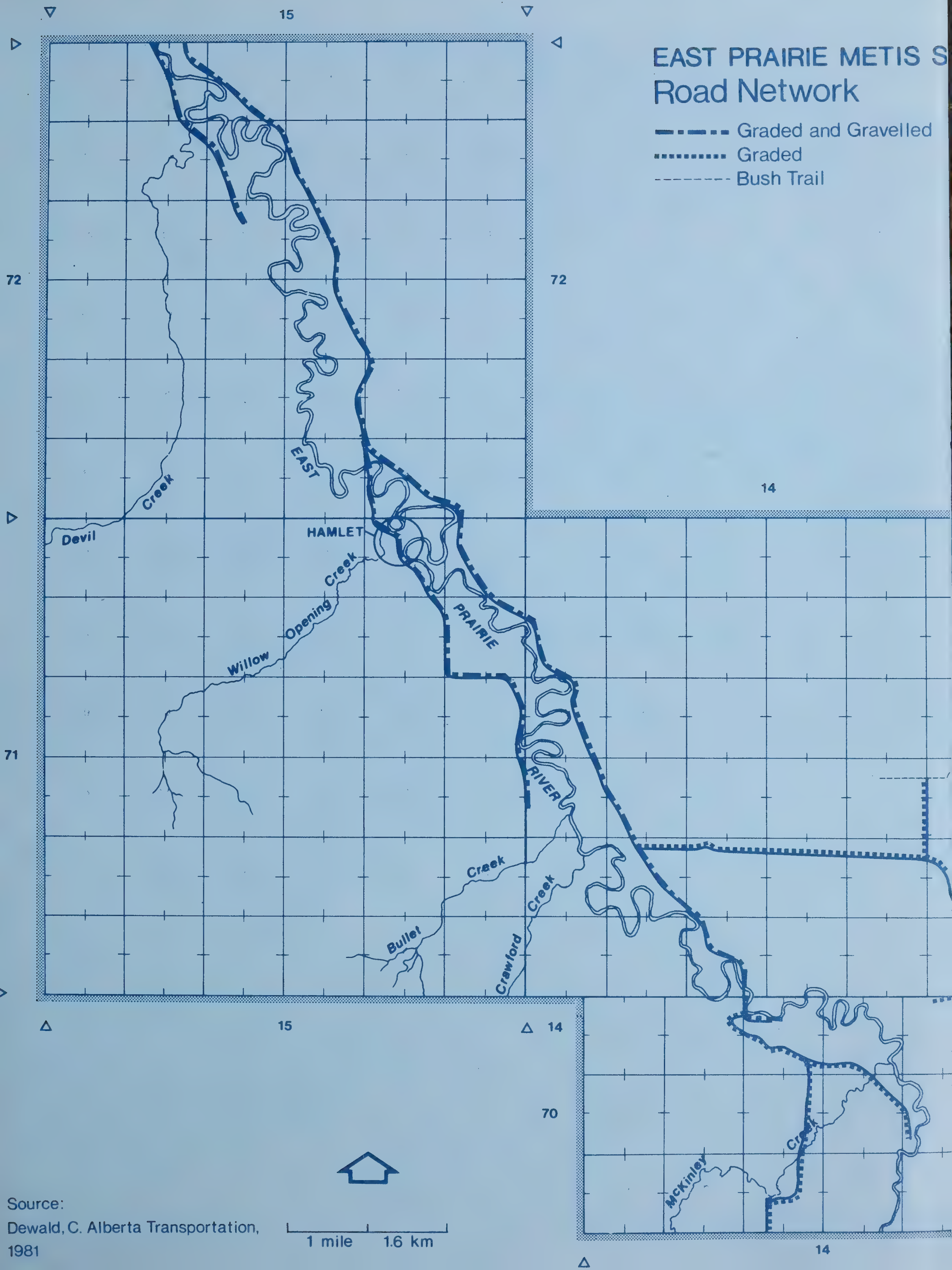
Infrastructure services on East Prairie include: a domestic water supply, transportation, power, waste disposal, communication, health services, education, recreation, police protection, a church and Settlement Administration Office. Water supply is dealt with in Section 4.4.

Roads are the only major transportation mode. Most roads on the Settlement are maintained by Alberta Transportation. The system parallels the East Prairie River, running from northwest to southeast through the Settlement (see Map 6.2). An artery of the main road provides access to the hamlet from Highway #2. North of the hamlet, the main road has an all weather gravel surface. South of the hamlet on the east side of the river, a bridge was built in 1978/79 and the road extended in 1979. In the summer of 1981 an additional 7.2 km (4.5 mi) of new road was constructed by Alberta Transportation south of the hamlet on the west side of the river (Dewald, 1981). This road extension provides improved access to allocated farmland and to potential farmland. The nearest access to bus and rail services is at Enilda, and the nearest airstrip is a paved and lighted runway at High Prairie.

Electricity and telephone are available to most settlers along the road system. Future settlement away from the established areas should be limited until power lines are extended. Homes are heated with wood, oil, or propane. There is no communal sewage collection system. Sewage disposal is by septic tank or pit privies. Solid waste is collected weekly (under contract) and disposed of in a modified landfill (nuisance grounds).

Telephones are available to most settlers on a party line system. Radio is received from Peace River, Grande Prairie and Edmonton. CBC and CFRN television are received. The nearest newspaper is published weekly in High Prairie.

EAST PRAIRIE METIS S
Road Network



Source:
Dewald, C. Alberta Transportation, 1981

Map 6.2

ETTLEMENT

Although a public health nurse regularly visits the Settlement, the nearest hospital and medical services are in High Prairie. As previously mentioned all school children are bused to High Prairie. Recreation facilities include a ball diamond, skating rink and rodeo grounds. As previously discussed in section 5.5, a campground and picnic area is under development and Council is considering relocating the ball facilities to that site.

East Prairie is policed by the High Prairie R.C.M.P. As yet there is no resident fire brigade. Other than the Settlement Office, there are no other government offices at East Prairie and no commercial outlets.

The planning implications of infrastructure development are considerable. Road location planning, for example, should be integrated with other factors such as the cost of extending power and telephone service to the newly opened area. The agricultural, forest, groundwater supply and quality, and recreational capability should also be assessed.

The impact on the existing hamlet of opening new areas must be considered. For example, when new areas are opened for settlement through road extension, will the new lands be settled by new residents, by existing residents moving out of the hamlet, or will the lands be allocated to existing farmers to expand their holdings? If the new lands are settled by persons moving out of the hamlet, hamlet density is likely to decline at least temporarily and thereby lessen the viability of installing communal water and sewer systems.

Opening new areas is also likely to create a demand for additional new housing. As the demand for more municipal type services increases, the Settlement should consider developing a Settlement garage or shop in which equipment could be stored and repaired, and building materials stored. Such a facility could also serve to house fire fighting equipment should it be acquired. Although there is currently no retail commercial development in East Prairie, there may be potential for a small grocery store with gas pump.

7.0 Settlement Hamlet

The hamlet has no defined boundaries but covers about 10 hectares (25 acres). Map 7.1 shows the housing layout in the Settlement hamlet. Hamlet structures include: the Settlement Administration Office, community hall, school, skating rink, ball diamonds, and 11 houses. It is situated on the east side of the river, approximately 11.2 km (7 mi) south of the northern boundary. In terms of the overall Settlement, the hamlet plays a relatively small role in the provision of housing stock. Only 11 of the 71 homes (or 15.5%) on East Prairie exist in the hamlet. There are about 37 vacant lots in the hamlet, 32 of which are unallocated.

To alleviate the housing shortage, the vacant hamlet lots should be allocated as an alternative to living on agricultural parcels. Hamlet lots better suit the needs of the elderly, people who commute regularly off the Settlement, and young couples waiting for road access to agricultural parcels. Additional hamlet lots would also support Council's desire to create a stronger housing and community facility focus in the hamlet.

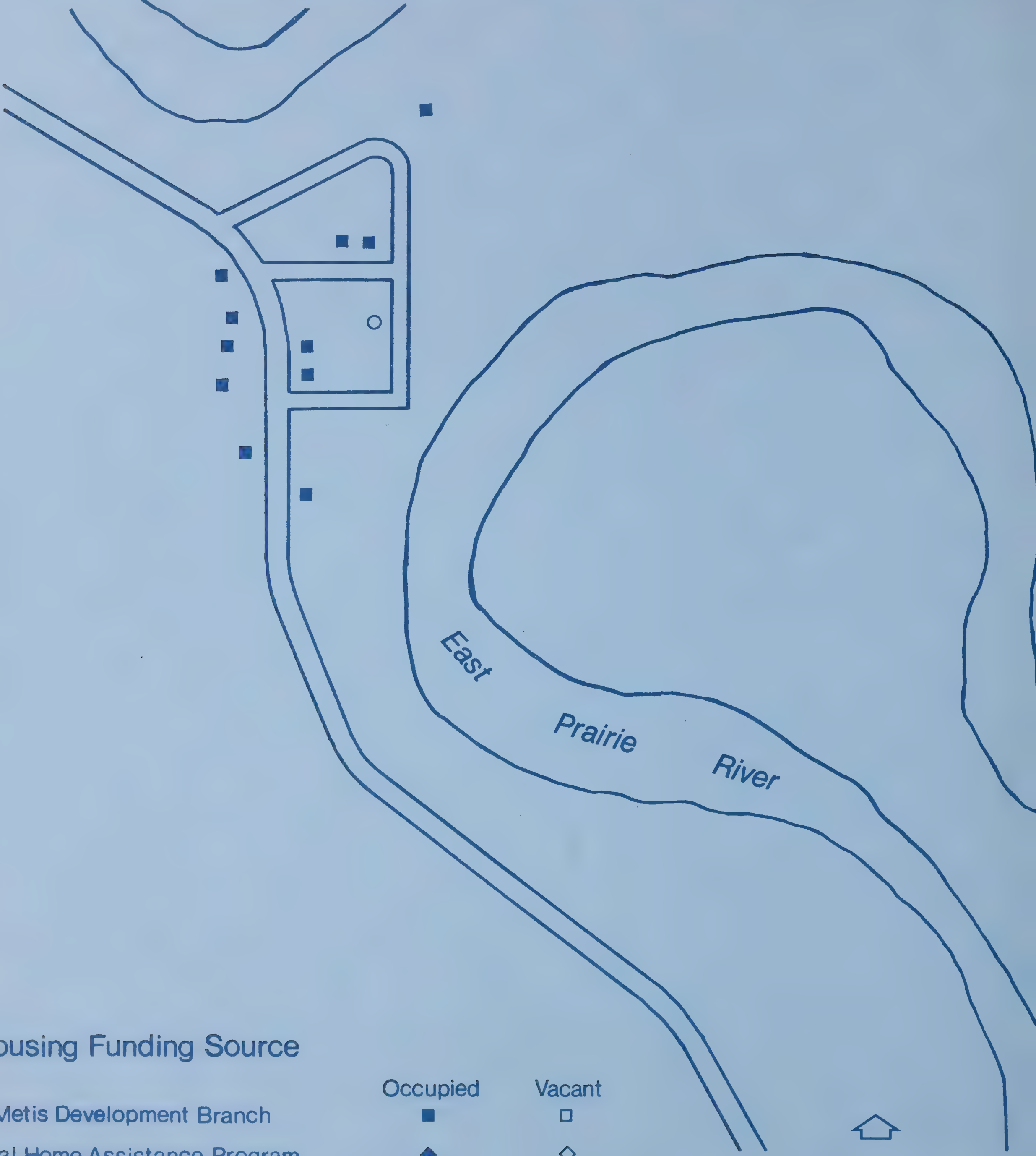
Two sites may become available to create additional hamlet lots. If the skating rink and ball diamond were moved to the recreation area in the south of the Settlement, additional land would become available. The second possibility is a 0.4 ha (10 ac) parcel directly to the west of the hamlet. At the present average lot size of 46 m by 110 m (150 ft x 360 ft), the latter site could add seven lots to the hamlet. Council also mentioned the possibility of acquiring the quarter section to the east of the hamlet.

Surveying and site planning should be considered for these areas adjacent to the hamlet. It is recommended that higher densities be considered in hamlet planning. Lots of less than 46 m by 110 m (150 ft x 360 ft) would result in more homes per unit of area. As a result the hamlet could provide additional lots to go further in alleviating the housing shortage. Higher densities would also increase the feasibility of supplying all hamlet homes with communal water and sewer services.

East Prairie Metis Settlement

Hamlet Housing

Map 7.1



Housing Funding Source

	Occupied	Vacant
Metis Development Branch	■	□
Rural Home Assistance Program	◆	◇
Emergency Trailer Program	▲	△
Other Sources	●	○

Note: Housing type, location and number may not be exact.

Source:
East Prairie Metis Settlement Council, 1981

As previously mentioned in Section 4.5.2, creating access to new agricultural land could result in residents moving out from the hamlet to live on agricultural parcels thereby further reducing the hamlet density. Hamlet population, however, could be increased by an influx of new Settlement members who commute to off-Settlement jobs, and by existing non-farm rural residents. Increasing the type and level of services and facilities in the hamlet could stimulate hamlet growth and enhance its role as a community focal point.

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